

## JRC TECHNICAL REPORTS

# PREDICT 2016 Country Factsheets: EU Member States – Data in Current Prices

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# PREDICT 2016 Country Factsheets: EU Member States - Data in Current Prices

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## Foreword

### **PREDICT: Prospective Insights on R&D in ICT**

PREDICT produces statistics and analyses on ICT industries and their R&D in Europe since 2006. The project covers major world competitors including 40 advanced and emerging countries – the EU28 plus Norway, Russia and Switzerland in Europe, Canada, the United States and Brazil in the Americas, China, India, Japan, Korea and Taiwan in Asia, and Australia – as well as a growing array of indicators related to the ICT content of economic activities.

### **Rationale**

ICTs determine competitive power in the knowledge economy. The ICT sector alone originates almost one fourth of total Business expenditure in R&D (BERD) for the aggregate of the 40 economies under scrutiny in the project. It also has a huge enabling role for innovation in other technological domains, let aside the impact of ICT uptake in the organisation of businesses. This is reflected at the EU policy level, where the Digital Agenda for Europe in 2010 was identified as one of the seven pillars of the Europe 2020 Strategy for growth in the Union and the achievement of a [Digital Single Market](#) (DSM) is one of the 10 political priorities set by the Commission since 2015.

### **Statistics and indicators**

PREDICT provides indicators in a wide variety of topics, including value added, employment, labour productivity and BERD, distinguishing fine grain economic activities in ICT and media and content industries (up to 22 individual activities, 14 of which at the class level, i.e. at 4 digits in the ISIC classification) and at a higher level of aggregation for all the other industries in the economy. It also produces data on Government financing of R&D in ICTs, and total R&D expenditure at the country level. Now-casting of more relevant data in these domains is also being performed..

### **Team**

PREDICT is a collaboration between the JRC and the European Commission [Communications Networks, Content and Technology \(CNECT\) Directorate General](#). Since 2013 data collection and analysis has been carried out jointly by JRC and the Valencian Institute of Economic Research ([Instituto Valenciano de Investigaciones Económicas - Ivie](#)).

## Abstract

The PREDICT 2016 Factsheets present essential statistical data regarding the performance of the EU ICT sector. These Factsheets are the subject of three reports. This report on 'Data in Current Prices' and the second report on 'Purchasing Power Standard' present sets of Factsheets with data on each EU Member State, in comparison to the EU average. The third report presents Factsheets on the EU and 12 non-EU countries: Australia, Brazil, Canada, China, India, Japan, Korea, Norway, Russia, Switzerland, Taiwan and the United States.

## Reading Notes

The figures at the top of each Factsheet display the information presented in the statistical tables. The left-hand figure gives a snapshot of country performance in ICT specialisation (VA/GDP), ICT productivity and ICT R&D as compared to the EU (EU absolute values listed below = Index 100). The right-hand figure gives a dynamic image (evolution 2006-2013) of the country ICT VA and GDP, and also ICT BERD and Total BERD. In this figure, ICT data is also presented by subsector.

Together these 2 figures allow us to assess very rapidly:

- the ICT sector's profile in each country in Europe (2013) as regards value added, productivity, R&D intensity.
- the evolution of the ICT sector since 2006: i.e. whether the sector as a whole and also its subsectors have emerged or declined in terms of value added and R&D expenditures, as compared to the overall dynamics of each country's economy.

The statistical tables provide the full data on which these figures are based. They are divided into two main blocks:

- the first shows **Economic and Industry Trends**: Gross Value Added (GVA), Employment and Productivity.
- the second concentrates on **R&D performance** showing R&D expenditures in terms of both the actual spending and R&D intensity, calculated as the ratio of R&D spending to GVA.

Additionally, the horizontal reading of the tables conveys three further items of information:

- The time coverage (2006-2013) allows us to assess the progress of the variables during the pre and post-crisis years.
- The column headed '2013 vs EU-%shares' displays the relative performance of each variable (expressed as a proportion) as compared to the EU.
- The double column headed '2013 vs 2006 (=100)' offers indices comparing the 2013 performance of each variable with its initial level in 2006 (Index: 100) for each Member State and the EU.

## Methodological Notes

The Factsheets are based on the latest available official data, made available by EUROSTAT. Data sources and methods are fully described in [the metadata](#) of PREDICT 2016.

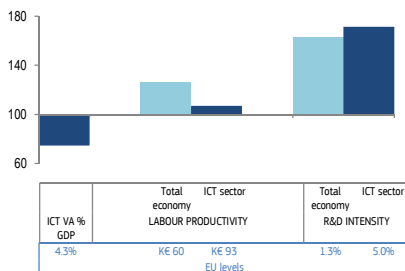
This report presents data in current prices for the EU Member States (market value or the price at which goods are currently being sold). Their equivalents in Purchasing Power Standard (PPS) are available [here](#).

The ICT sector is classified in four sub-categories to facilitate the reading: ICT manufacturing (NACE 261-264, 268), telecommunications (NACE 61), computer services (NACE 5820, 62, 631, 951) and ICT wholesale trade (NACE 465). The classification method follows [OECD \(2007\)](#).

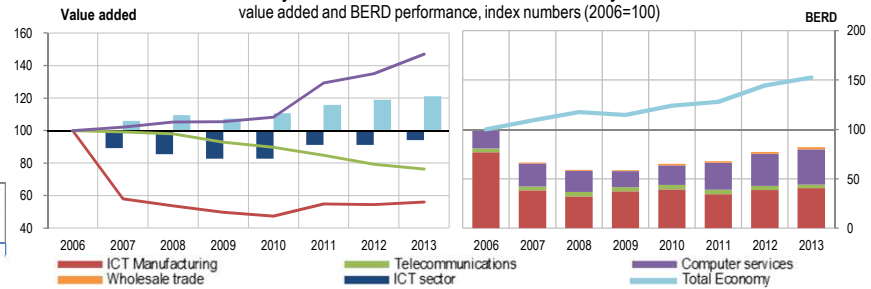
## AUSTRIA



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Austria	EU
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### Economic and industry trends

#### Value added (€ bn)

<b>Total economy (GDP)</b>	<b>266</b>	<b>282</b>	<b>292</b>	<b>286</b>	<b>295</b>	<b>309</b>	<b>317</b>	<b>323</b>	<b>2.4%</b>	<b>121</b>	<b>111</b>
ICT sector	11	10	9	9	9	10	10	10	1.8%	94	109
Manufacturing	3	2	2	2	1	2	2	2	3.5%	56	69
Telecommunications	3	3	3	3	3	3	3	2	1.4%	76	85
Computer services	4	4	4	4	4	5	5	5	1.7%	147	140
Wholesale trade	1	1	1	1	1	1	1	1	1.7%	..	126
→ ICT sector as a % of Total	4.1%	3.5%	3.2%	3.2%	3.1%	3.3%	3.2%	3.2%			

#### Employment (thousands)

<b>Total economy</b>	<b>3,941</b>	<b>4,014</b>	<b>4,090</b>	<b>4,073</b>	<b>4,102</b>	<b>4,166</b>	<b>4,211</b>	<b>4,231</b>	<b>1.9%</b>	<b>107</b>	<b>100</b>
ICT sector	104	95	98	98	96	99	102	104	1.7%	100	107
Manufacturing	25	16	17	17	13	12	13	13	1.9%	51	74
Telecommunications	20	20	20	18	18	18	17	17	1.5%	84	89
Computer services	48	48	53	54	56	61	63	65	1.7%	135	127
Wholesale trade	10	10	9	9	9	9	9	9	1.6%	87	97
→ ICT sector as a % of Total	2.6%	2.4%	2.4%	2.4%	2.3%	2.4%	2.4%	2.5%			

#### Productivity of labour (PPS thous./person employed)

<b>Total economy</b>	<b>68</b>	<b>70</b>	<b>71</b>	<b>70</b>	<b>72</b>	<b>74</b>	<b>75</b>	<b>76</b>	<b>(1.27)</b>	<b>113</b>	<b>111</b>
ICT sector	106	103	96	93	95	101	98	100	(1.07)	94	101
Manufacturing	122	108	96	92	117	139	129	135	(1.85)	111	93
Telecommunications	161	160	160	162	159	153	148	146	(0.93)	90	96
Computer services	75	76	72	70	69	77	77	81	(1.02)	109	110
Wholesale trade	108	113	94	90	100	108	106	98	(1.07)	91	130

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

<b>Total economy</b>	<b>4,449</b>	<b>4,846</b>	<b>5,233</b>	<b>5,093</b>	<b>5,520</b>	<b>5,693</b>	<b>6,424</b>	<b>6,778</b>	<b>3.9%</b>	<b>152</b>	<b>127</b>
ICT sector	1,079	718	638	634	702	732	833	886	3.1%	82	112
Manufacturing	830	412	348	402	424	370	416	436	3.8%	53	84
Telecommunications	39	43	47	45	49	50	47	38	1.2%	98	78
Computer services	198	252	232	176	215	293	349	386	2.9%	195	179
Wholesale trade	12	10	10	11	14	19	22	25	3.2%	213	146
→ ICT sector as a % of Total	24.3%	14.8%	12.2%	12.4%	12.7%	12.9%	13.0%	13.1%			

#### R&D Intensity (BERD as a % of value added)

<b>Total economy (% GDP)</b>	<b>1.7</b>	<b>1.7</b>	<b>1.8</b>	<b>1.8</b>	<b>1.9</b>	<b>1.8</b>	<b>2.0</b>	<b>2.1</b>	<b>(1.63)</b>	<b>126</b>	<b>114</b>
ICT sector	9.8	7.3	6.8	7.0	7.7	7.3	8.3	8.6	(1.71)	87	103
Manufacturing	27.0	23.1	21.1	26.2	29.1	21.9	24.8	25.3	(1.09)	94	122
Telecommunications	1.2	1.4	1.5	1.5	1.7	1.9	1.8	1.6	(0.83)	128	93
Computer services	5.5	6.9	6.1	4.6	5.5	6.3	7.2	7.3	(1.66)	133	128
Wholesale trade	1.0	0.9	1.2	1.3	1.6	1.9	2.3	2.8	(1.88)	268	116
Rest of the economy	1.3	1.5	1.6	1.6	1.7	1.7	1.8	1.9	(1.68)	143	117

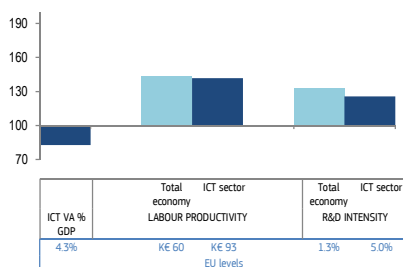
Note: all monetary variables are expressed in euros at current prices and exchange rates.

% shares and (levels) correspond to the (%) ratio between the value of a variable (x) in country (i) and in the EU economy [= x/x<sub>EU</sub>]. Percentage shares portray the weight of each country in the EU aggregate, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

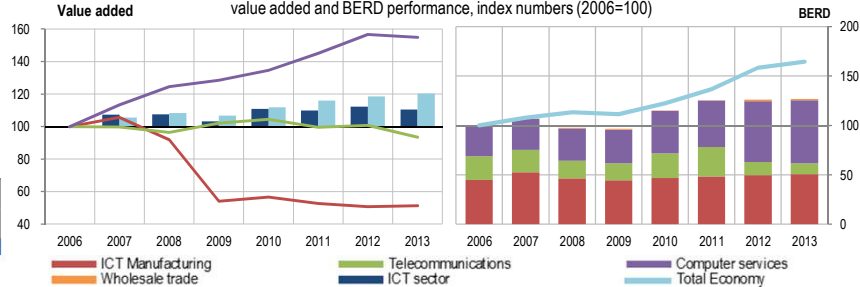
## BELGIUM



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	
											Belgium
											EU

### Economic and industry trends

#### Value added (€ bn)

<b>Total economy (GDP)</b>	<b>327</b>	<b>345</b>	<b>354</b>	<b>349</b>	<b>365</b>	<b>379</b>	<b>387</b>	<b>393</b>	<b>2.9%</b>	<b>120</b>	<b>111</b>
<b>ICT sector</b>	<b>13</b>	<b>14</b>	<b>14</b>	<b>13</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>2.4%</b>	<b>110</b>	<b>109</b>
Manufacturing	2	2	1	1	1	1	1	1	1.6%	..	69
Telecommunications	5	5	5	6	6	5	6	5	3.0%	93	85
Computer services	4	5	5	5	6	6	7	6	2.1%	155	140
Wholesale trade	1	2	2	1	2	2	1	2	3.1%	110	126
→ <b>ICT sector as a % of Total</b>	<b>3.9%</b>	<b>3.9%</b>	<b>3.8%</b>	<b>3.7%</b>	<b>3.8%</b>	<b>3.7%</b>	<b>3.7%</b>	<b>3.6%</b>			

#### Employment (thousands)

<b>Total economy</b>	<b>4,303</b>	<b>4,374</b>	<b>4,453</b>	<b>4,446</b>	<b>4,474</b>	<b>4,535</b>	<b>4,552</b>	<b>4,534</b>	<b>2.0%</b>	<b>105</b>	<b>100</b>
<b>ICT sector</b>	<b>101</b>	<b>105</b>	<b>108</b>	<b>108</b>	<b>107</b>	<b>106</b>	<b>105</b>	<b>105</b>	<b>1.7%</b>	<b>105</b>	<b>107</b>
Manufacturing	13	14	13	9	8	8	7	7	1.1%	54	74
Telecommunications	28	28	28	28	29	28	28	27	2.5%	98	89
Computer services	45	49	52	58	57	58	58	59	1.5%	131	127
Wholesale trade	14	15	15	13	14	12	12	12	2.1%	85	97
→ <b>ICT sector as a % of Total</b>	<b>2.3%</b>	<b>2.4%</b>	<b>2.4%</b>	<b>2.4%</b>	<b>2.4%</b>	<b>2.3%</b>	<b>2.3%</b>	<b>2.3%</b>			

#### Productivity of labour (PPS thous./person employed)

<b>Total economy</b>	<b>76</b>	<b>79</b>	<b>80</b>	<b>78</b>	<b>82</b>	<b>84</b>	<b>85</b>	<b>87</b>	<b>(1.44)</b>	<b>114</b>	<b>111</b>
<b>ICT sector</b>	<b>126</b>	<b>129</b>	<b>126</b>	<b>121</b>	<b>131</b>	<b>131</b>	<b>135</b>	<b>132</b>	<b>(1.42)</b>	<b>105</b>	<b>101</b>
Manufacturing	115	118	110	91	106	102	107	110	(1.51)	95	93
Telecommunications	195	195	187	200	200	192	197	186	(1.18)	96	96
Computer services	93	97	100	93	99	105	112	110	(1.39)	118	110
Wholesale trade	103	117	114	92	130	129	115	132	(1.44)	129	130

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

<b>Total economy</b>	<b>4,106</b>	<b>4,420</b>	<b>4,650</b>	<b>4,575</b>	<b>5,028</b>	<b>5,613</b>	<b>6,493</b>	<b>6,746</b>	<b>3.9%</b>	<b>164</b>	<b>127</b>
<b>ICT sector</b>	<b>690</b>	<b>739</b>	<b>674</b>	<b>666</b>	<b>792</b>	<b>863</b>	<b>870</b>	<b>876</b>	<b>3.0%</b>	<b>127</b>	<b>112</b>
Manufacturing	309	362	320	307	322	333	343	349	3.0%	113	84
Telecommunications	166	158	123	119	173	208	92	76	2.4%	46	78
Computer services	213	215	225	234	297	322	425	440	3.3%	207	179
Wholesale trade	3	3	5	5	0	0	10	10	1.3%	355	146
→ <b>ICT sector as a % of Total</b>	<b>16.8%</b>	<b>16.7%</b>	<b>14.5%</b>	<b>14.6%</b>	<b>15.8%</b>	<b>15.4%</b>	<b>13.4%</b>	<b>13.0%</b>			

#### R&D Intensity (BERD as a % of value added)

<b>Total economy (% GDP)</b>	<b>1.3</b>	<b>1.3</b>	<b>1.3</b>	<b>1.3</b>	<b>1.4</b>	<b>1.5</b>	<b>1.7</b>	<b>1.7</b>	<b>(1.33)</b>	<b>137</b>	<b>114</b>
<b>ICT sector</b>	<b>5.5</b>	<b>5.4</b>	<b>5.0</b>	<b>5.1</b>	<b>5.7</b>	<b>6.2</b>	<b>6.1</b>	<b>6.3</b>	<b>(1.26)</b>	<b>115</b>	<b>103</b>
Manufacturing	20.0	22.2	22.5	36.7	36.8	40.8	43.8	44.0	(1.90)	220	122
Telecommunications	3.0	2.9	2.3	2.1	3.0	3.8	1.7	1.5	(0.79)	49	93
Computer services	5.1	4.5	4.3	4.4	5.3	5.3	6.5	6.8	(1.56)	134	128
Wholesale trade	0.2	0.2	0.3	0.4	0.0	0.0	0.8	0.6	(0.42)	..	116
Rest of the economy	1.1	1.1	1.2	1.2	1.2	1.3	1.5	1.5	(1.38)	143	117

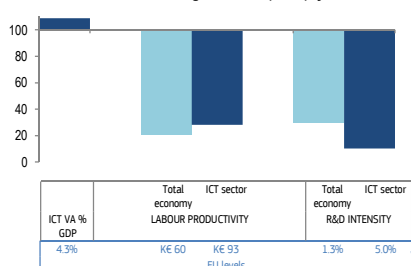
Note: all monetary variables are expressed in euros at current prices and exchange rates.

% shares and (levels) correspond to the (%) ratio between the value of a variable (x) in country (i) and in the EU economy [= x<sub>i</sub>/x<sub>EU</sub>]. Percentage shares portray the weight of each country in the EU aggregate, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

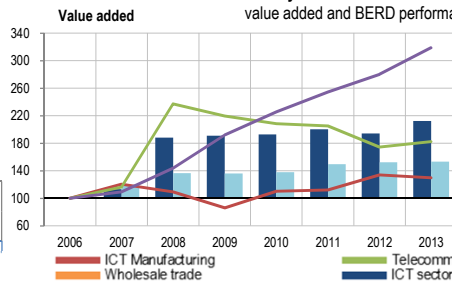
## BULGARIA



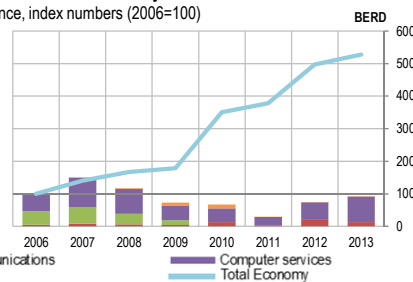
Benchmarking vs. EU28 (=100), year 2013



Value added



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Bulgaria	EU
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### Economic and industry trends

#### Value added (€ bn)

<b>Total economy (GDP)</b>	<b>27</b>	<b>33</b>	<b>37</b>	<b>37</b>	<b>38</b>	<b>41</b>	<b>42</b>	<b>42</b>	<b>0.3%</b>	<b>153</b>	<b>111</b>
ICT sector	1	1	2	2	2	2	2	2	0.3%	..	109
Manufacturing	0	0	0	0	0	0	0	0	0.1%	..	69
Telecommunications	0	1	1	1	1	1	1	1	0.5%	..	85
Computer services	0	0	0	1	1	1	1	1	0.3%	..	140
Wholesale trade	0	0	0	0	0	0	0	0	0.2%	..	126
→ ICT sector as a % of Total	3.4%	3.2%	4.6%	4.7%	4.7%	4.5%	4.3%	4.7%			

#### Employment (thousands)

<b>Total economy</b>	<b>3,612</b>	<b>3,727</b>	<b>3,815</b>	<b>3,749</b>	<b>3,604</b>	<b>3,525</b>	<b>3,436</b>	<b>3,422</b>	<b>1.5%</b>	<b>95</b>	<b>100</b>
ICT sector	51	54	57	59	71	72	73	74	1.2%	147	107
Manufacturing	8	8	9	7	7	7	7	7	1.1%	98	74
Telecommunications	26	26	26	27	24	25	25	24	2.2%	94	89
Computer services	10	12	15	18	33	35	36	38	1.0%	369	127
Wholesale trade	7	8	7	8	7	5	5	5	0.9%	72	97
→ ICT sector as a % of Total	1.4%	1.4%	1.5%	1.6%	2.0%	2.1%	2.1%	2.2%			

#### Productivity of labour (PPS thous./person employed)

<b>Total economy</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>(0.20)</b>	<b>162</b>	<b>111</b>
ICT sector	18	19	30	30	25	25	24	26	(0.28)	145	101
Manufacturing	7	8	6	7	9	8	10	9	(0.12)	133	93
Telecommunications	19	22	45	40	42	40	35	37	(0.23)	194	96
Computer services	27	25	27	30	19	21	21	24	(0.30)	86	110
Wholesale trade	15	14	16	13	9	14	17	22	(0.24)	152	130

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

<b>Total economy</b>	<b>31</b>	<b>43</b>	<b>52</b>	<b>55</b>	<b>108</b>	<b>117</b>	<b>154</b>	<b>163</b>	<b>0.1%</b>	<b>528</b>	<b>127</b>
ICT sector	11	16	13	8	7	3	8	10	..	93	112
Manufacturing	1	1	1	0	1	0	2	1	..	..	84
Telecommunications	4	5	3	2	-	-	0	0	..	..	78
Computer services	6	10	8	5	5	3	6	8	0.1%	148	179
Wholesale trade	0	0	0	1	1	0	0	0	..	..	146
→ ICT sector as a % of Total	34.8%	37.1%	24.4%	14.2%	6.7%	2.8%	5.2%	6.2%			

#### R&D Intensity (BERD as a % of value added)

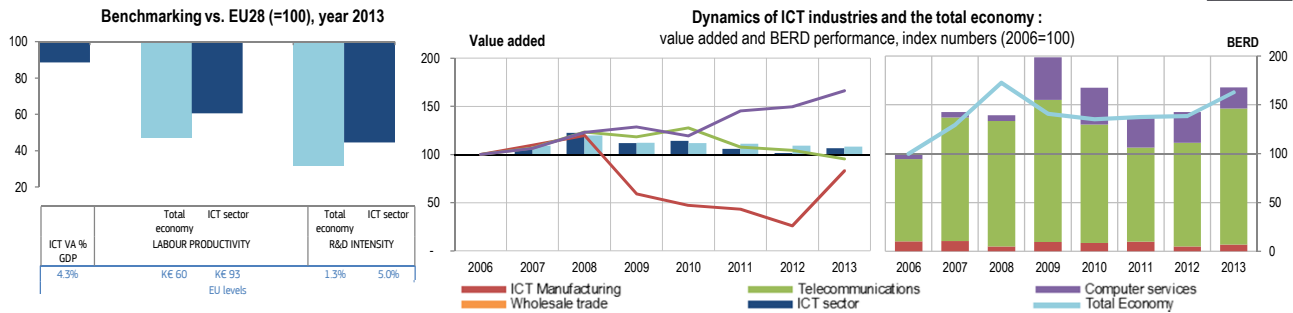
<b>Total economy (% GDP)</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.3</b>	<b>0.3</b>	<b>0.4</b>	<b>0.4</b>	<b>(0.30)</b>	<b>..</b>	<b>114</b>
ICT sector	1.2	1.5	0.7	0.4	0.4	0.2	0.4	0.5	(0.10)	44	103
Manufacturing	1.1	1.3	1.2	1.0	2.5	0.5	3.1	2.1	(0.09)	197	122
Telecommunications	0.9	0.9	0.3	0.2	0.0	0.0	0.0	0.0	(0.00)	..	93
Computer services	2.0	3.2	2.1	0.9	0.7	0.4	0.7	1.0	(0.22)	47	128
Wholesale trade	0.1	0.1	0.2	0.9	1.8	0.2	0.1	0.1	(0.06)	..	116
Rest of the economy	0.1	0.1	0.1	0.1	0.3	0.3	0.4	0.4	(0.34)	..	117

Note: all monetary variables are expressed in euros at current prices and exchange rates.

% shares and (levels) correspond to the (%) ratio between the value of a variable (x) in country (i) and in the EU economy [= x/x<sub>EU</sub>]. Percentage shares portray the weight of each country in the EU aggregate, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)



## CROATIA



2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	Bulgaria	EU
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### Economic and industry trends

#### Value added (€ bn)

Total economy (GDP)	40	44	48	45	45	45	44	44	0.3%	108	111
ICT sector	2	2	2	2	2	2	2	2	0.3%	107	109
Manufacturing	0	0	0	0	0	0	0	0	0.3%	..	69
Telecommunications	1	1	1	1	1	1	1	1	0.5%	..	85
Computer services	0	0	0	0	0	0	0	1	0.2%	..	140
Wholesale trade	0	0	0	0	0	0	0	0	0.2%	..	126
→ ICT sector as a % of Total	3.9%	3.8%	3.9%	3.9%	3.9%	3.7%	3.6%	3.8%			

#### Employment (thousands)

Total economy	1,564	1,715	1,780	1,767	1,700	1,635	1,575	1,534	0.7%	98	100
ICT sector	26	30	30	28	30	30	26	29	0.5%	111	107
Manufacturing	6	6	7	3	2	2	2	2	0.3%	40	74
Telecommunications	10	12	11	12	11	10	7	7	0.7%	71	89
Computer services	9	11	10	12	15	16	16	19	0.5%	214	127
Wholesale trade	2	2	2	2	2	2	1	1	0.2%	70	97
→ ICT sector as a % of Total	1.7%	1.8%	1.7%	1.6%	1.7%	1.8%	1.7%	1.9%			

#### Productivity of labour (PPS thous./person employed)

Total economy	26	26	27	26	26	27	28	28	(0.47)	110	111
ICT sector	59	54	62	62	60	55	60	57	(0.61)	96	101
Manufacturing	32	33	30	40	42	37	25	67	(0.92)	210	93
Telecommunications	93	87	105	95	108	102	149	125	(0.79)	134	96
Computer services	35	30	38	34	25	27	28	27	(0.35)	78	110
Wholesale trade	60	59	60	54	60	59	51	66	(0.72)	109	130

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

Total economy	109	141	188	154	148	150	151	178	0.1%	163	127
ICT sector	22	31	31	43	37	30	31	37	0.1%	168	112
Manufacturing	2	2	1	2	2	2	1	2	..	67	84
Telecommunications	18	28	28	32	26	21	23	30	0.9%	166	78
Computer services	1	1	1	9	8	7	7	5	..	395	179
Wholesale trade	-	-	-	-	-	-	-	-	..	..	146
→ ICT sector as a % of Total	20.0%	22.0%	16.2%	28.2%	24.8%	20.0%	20.6%	20.7%			

#### R&D Intensity (BERD as a % of value added)

Total economy (% GDP)	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.4	(0.32)	..	114
ICT sector	1.4	1.9	1.6	2.5	2.1	1.8	2.0	2.2	(0.44)	158	103
Manufacturing	1.3	1.2	0.5	2.0	2.3	2.8	2.3	1.0	(0.04)	80	122
Telecommunications	1.9	2.7	2.4	2.8	2.2	2.0	2.3	3.3	(1.75)	173	93
Computer services	0.4	0.4	0.4	2.4	2.3	1.5	1.5	0.9	(0.21)	238	128
Wholesale trade	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.00)	..	116
Rest of the economy	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	(0.30)	..	117

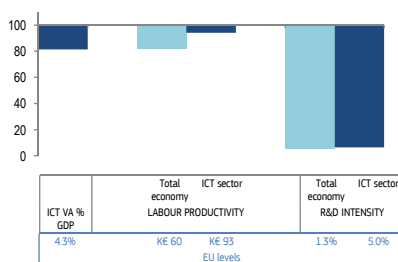
Note: all monetary variables are expressed in euros at current prices and exchange rates.

% shares and (levels) correspond to the (%) ratio between the value of a variable (x) in country (i) and in the EU economy [= x/x<sub>EU</sub>]. Percentage shares portray the weight of each country in the EU aggregate, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

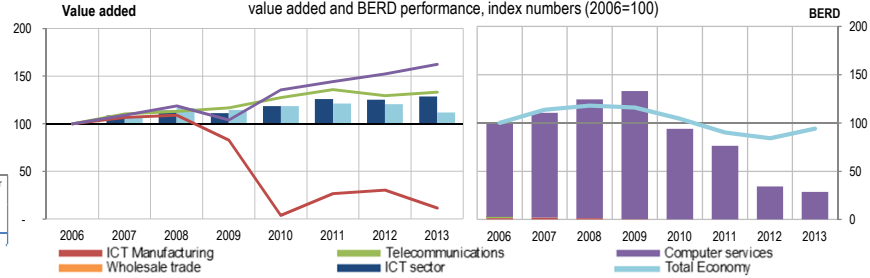
## CYPRUS



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Cyprus	2013 vs 2006(=100) EU
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### Economic and industry trends

#### Value added (€ bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Cyprus	2013 vs 2006(=100) EU
<b>Total economy (GDP)</b>	16	17	19	18	19	20	19	18	0.1%	112	111
ICT sector	0	1	1	1	1	1	1	1	0.1%	..	109
Manufacturing	0	0	0	0	0	0	0	0	..	..	69
Telecommunications	0	0	0	0	0	0	0	0	0.2%	..	85
Computer services	0	0	0	0	0	0	0	0	0.1%	..	140
Wholesale trade	0	0	0	0	0	0	0	0	0.1%	..	126
→ ICT sector as a % of Total	3.0%	3.1%	3.0%	3.0%	3.0%	3.2%	3.2%	3.5%			

#### Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Cyprus	2013 vs 2006(=100) EU
<b>Total economy</b>	373	386	393	392	401	403	389	365	0.2%	98	100
ICT sector	6	7	7	7	7	8	7	7	0.1%	111	107
Manufacturing	0	0	0	0	0	0	0	0	..	..	74
Telecommunications	3	3	3	3	3	4	3	3	0.3%	110	89
Computer services	2	3	3	2	3	3	3	3	0.1%	122	127
Wholesale trade	1	1	1	1	1	1	1	1	0.2%	..	97
→ ICT sector as a % of Total	1.7%	1.8%	1.8%	1.8%	1.9%	1.9%	1.9%	2.0%			

#### Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Cyprus	2013 vs 2006(=100) EU
<b>Total economy</b>	43	45	48	47	48	48	50	50	(0.82)	114	111
ICT sector	76	78	81	79	78	82	84	88	(0.94)	116	101
Manufacturing	46	39	40	32	1	9	15	10	(0.14)	22	93
Telecommunications	98	102	106	106	114	116	115	118	(0.75)	121	96
Computer services	53	53	58	52	58	63	66	71	(0.89)	134	110
Wholesale trade	65	64	64	63	29	30	34	32	(0.35)	50	130

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Cyprus	2013 vs 2006(=100) EU
<b>Total economy</b>	14	16	17	16	15	13	12	13	..	94	127
ICT sector	5	6	7	7	6	5	2	2	..	37	112
Manufacturing	0	0	0	0	-	-	-	-	..	..	84
Telecommunications	0	-	0	0	1	0	0	0	..	..	78
Computer services	5	6	7	7	5	4	2	2	..	30	179
Wholesale trade	-	-	-	-	-	-	0	0	..	..	146
→ ICT sector as a % of Total	38.7%	37.6%	41.4%	44.8%	39.0%	36.7%	19.4%	15.2%			

#### R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Cyprus	2013 vs 2006(=100) EU
<b>Total economy (% GDP)</b>	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	(0.06)	..	114
ICT sector	1.1	1.1	1.2	1.4	1.0	0.8	0.4	0.3	(0.06)	29	103
Manufacturing	1.5	2.0	1.4	0.8	0.0	0.0	0.0	0.0	(0.00)	..	122
Telecommunications	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.1	(0.06)	..	93
Computer services	4.3	4.4	4.6	5.7	3.1	2.4	1.0	0.8	(0.18)	18	128
Wholesale trade	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	(0.07)	..	116
Rest of the economy	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	(0.06)	..	117

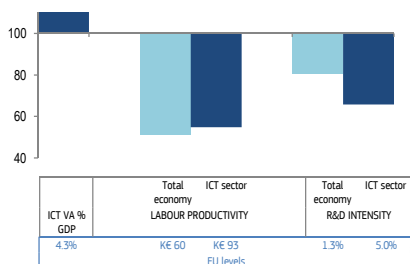
Note: all monetary variables are expressed in euros at current prices and exchange rates.

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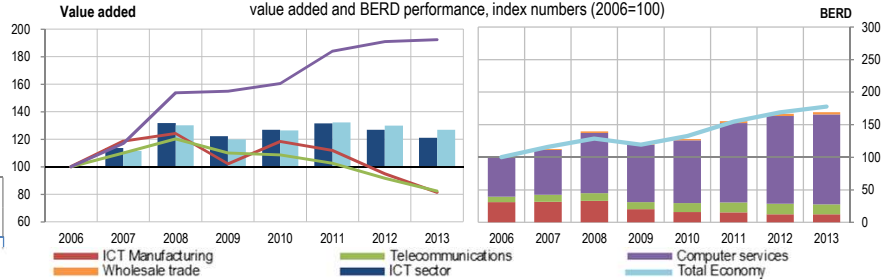
## CZECH REPUBLIC



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	
											Czech EU

### Economic and industry trends

#### Value added (€ bn)

<b>Total economy (GDP)</b>	<b>124</b>	<b>138</b>	<b>161</b>	<b>148</b>	<b>156</b>	<b>164</b>	<b>161</b>	<b>157</b>	<b>1.2%</b>	<b>127</b>	<b>111</b>
ICT sector	6	7	8	8	8	8	8	8	1.3%	121	109
Manufacturing	1	1	1	1	1	1	1	1	1.9%	-	69
Telecommunications	3	3	3	3	3	3	2	2	1.3%	82	85
Computer services	2	2	3	3	3	4	4	4	1.3%	192	140
Wholesale trade	0	0	0	0	0	0	0	0	0.9%	-	126
→ ICT sector as a % of Total	5.1%	5.2%	5.2%	5.2%	5.1%	5.1%	5.0%	4.9%			

#### Employment (thousands)

<b>Total economy</b>	<b>4,989</b>	<b>5,093</b>	<b>5,204</b>	<b>5,110</b>	<b>5,057</b>	<b>5,043</b>	<b>5,065</b>	<b>5,081</b>	<b>2.3%</b>	<b>102</b>	<b>100</b>
ICT sector	137	151	159	158	151	147	148	149	2.4%	109	107
Manufacturing	36	41	43	37	31	31	29	26	3.8%	73	74
Telecommunications	24	23	23	23	21	21	20	20	1.8%	81	89
Computer services	66	75	81	88	88	84	88	91	2.4%	138	127
Wholesale trade	10	12	12	10	11	11	11	12	2.1%	112	97
→ ICT sector as a % of Total	2.7%	3.0%	3.0%	3.1%	3.0%	2.9%	2.9%	2.9%			

#### Productivity of labour (PPS thous./person employed)

<b>Total economy</b>	<b>25</b>	<b>27</b>	<b>31</b>	<b>29</b>	<b>31</b>	<b>32</b>	<b>32</b>	<b>31</b>	<b>(0.51)</b>	<b>125</b>	<b>111</b>
ICT sector	46	47	52	49	53	56	54	51	(0.55)	111	101
Manufacturing	32	32	33	32	43	41	38	35	(0.48)	111	93
Telecommunications	110	126	139	127	136	131	123	112	(0.71)	102	96
Computer services	32	33	40	37	38	46	45	44	(0.56)	139	110
Wholesale trade	37	35	38	34	34	38	40	39	(0.43)	106	130

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

<b>Total economy</b>	<b>912</b>	<b>1,057</b>	<b>1,173</b>	<b>1,087</b>	<b>1,209</b>	<b>1,412</b>	<b>1,542</b>	<b>1,622</b>	<b>0.9%</b>	<b>178</b>	<b>127</b>
ICT sector	148	167	207	179	189	230	246	250	0.9%	169	112
Manufacturing	46	47	49	30	23	23	19	18	0.2%	40	84
Telecommunications	13	16	17	15	21	22	24	23	0.7%	181	78
Computer services	88	101	137	130	142	180	199	204	1.5%	233	179
Wholesale trade	2	3	4	3	3	4	5	5	0.6%	258	146
→ ICT sector as a % of Total	16.2%	15.8%	17.7%	16.5%	15.7%	16.3%	16.0%	15.4%			

#### R&D Intensity (BERD as a % of value added)

<b>Total economy (% GDP)</b>	<b>0.7</b>	<b>0.8</b>	<b>0.7</b>	<b>0.7</b>	<b>0.8</b>	<b>0.9</b>	<b>1.0</b>	<b>1.0</b>	<b>(0.80)</b>	<b>140</b>	<b>114</b>
ICT sector	2.4	2.3	2.5	2.3	2.4	2.8	3.1	3.3	(0.66)	140	103
Manufacturing	4.1	3.5	3.5	2.6	1.7	1.8	1.7	2.0	(0.09)	49	122
Telecommunications	0.5	0.6	0.5	0.5	0.7	0.8	1.0	1.0	(0.55)	220	93
Computer services	4.2	4.1	4.2	4.0	4.2	4.7	5.0	5.1	(1.16)	121	128
Wholesale trade	0.5	0.6	0.9	0.9	0.9	1.0	1.0	1.0	(0.69)	217	116
Rest of the economy	0.7	0.7	0.6	0.6	0.7	0.8	0.8	0.9	(0.82)	-	117

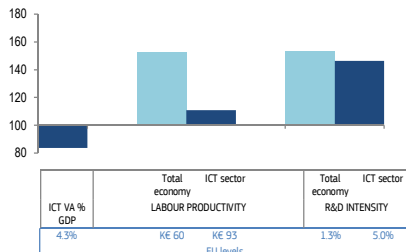
Note: all monetary variables are expressed in euros at current prices and exchange rates.

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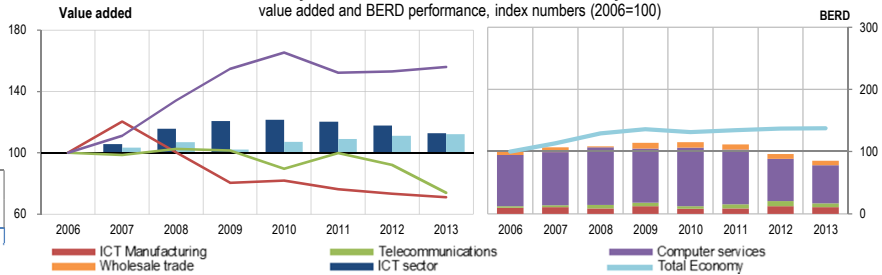
**DENMARK**



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Denmark	2013 vs 2006(=100) EU
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## Economic and industry trends

### Value added (€ bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Denmark	2013 vs 2006(=100) EU
<b>Total economy (GDP)</b>	<b>226</b>	<b>233</b>	<b>241</b>	<b>230</b>	<b>242</b>	<b>246</b>	<b>251</b>	<b>253</b>	<b>1.9%</b>	<b>112</b>	<b>111</b>
ICT sector	8	9	9	10	10	10	9	9	1.6%	113	109
Manufacturing	1	1	1	1	1	1	1	0	1.0%	-	69
Telecommunications	3	3	3	3	2	3	3	2	1.2%	74	85
Computer services	3	3	4	5	5	5	5	5	1.6%	156	140
Wholesale trade	1	1	2	1	2	2	2	2	3.2%	114	126
→ ICT sector as a % of Total	3.6%	3.6%	3.9%	4.2%	4.0%	3.9%	3.8%	3.6%			

### Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Denmark	2013 vs 2006(=100) EU
<b>Total economy</b>	<b>2,814</b>	<b>2,877</b>	<b>2,910</b>	<b>2,823</b>	<b>2,758</b>	<b>2,756</b>	<b>2,748</b>	<b>2,749</b>	<b>1.2%</b>	<b>98</b>	<b>100</b>
ICT sector	85	88	92	91	89	90	89	88	1.4%	103	107
Manufacturing	8	8	8	6	6	5	5	5	0.7%	61	74
Telecommunications	19	18	18	17	16	16	15	14	1.3%	74	89
Computer services	42	46	50	52	52	52	52	53	1.4%	126	127
Wholesale trade	16	16	16	16	15	17	16	16	2.8%	97	97
→ ICT sector as a % of Total	3.0%	3.1%	3.2%	3.2%	3.2%	3.3%	3.2%	3.2%			

### Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Denmark	2013 vs 2006(=100) EU
<b>Total economy</b>	<b>80</b>	<b>81</b>	<b>83</b>	<b>82</b>	<b>88</b>	<b>89</b>	<b>91</b>	<b>92</b>	<b>(1.53)</b>	<b>115</b>	<b>111</b>
ICT sector	95	97	101	107	110	107	107	104	(1.11)	109	101
Manufacturing	87	103	91	89	98	98	97	100	(1.38)	115	93
Telecommunications	146	152	158	166	156	173	171	147	(0.93)	100	96
Computer services	75	75	83	93	100	91	91	92	(1.16)	123	110
Wholesale trade	89	93	98	96	103	97	102	105	(1.15)	117	130

## R&D performance

### Business expenditure in R&D (BERD - € mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Denmark	2013 vs 2006(=100) EU
<b>Total economy</b>	<b>3,628</b>	<b>4,102</b>	<b>4,684</b>	<b>4,931</b>	<b>4,755</b>	<b>4,870</b>	<b>4,977</b>	<b>4,996</b>	<b>2.9%</b>	<b>138</b>	<b>127</b>
ICT sector	780	834	846	891	899	871	748	663	2.3%	85	112
Manufacturing	75	81	66	96	61	67	93	83	0.7%	111	84
Telecommunications	20	26	46	44	32	52	65	50	1.5%	251	78
Computer services	641	666	723	677	737	687	529	477	3.5%	74	179
Wholesale trade	44	60	11	74	68	65	60	53	7.0%	121	146
→ ICT sector as a % of Total	21.5%	20.3%	18.1%	18.1%	18.9%	17.9%	15.0%	13.3%			

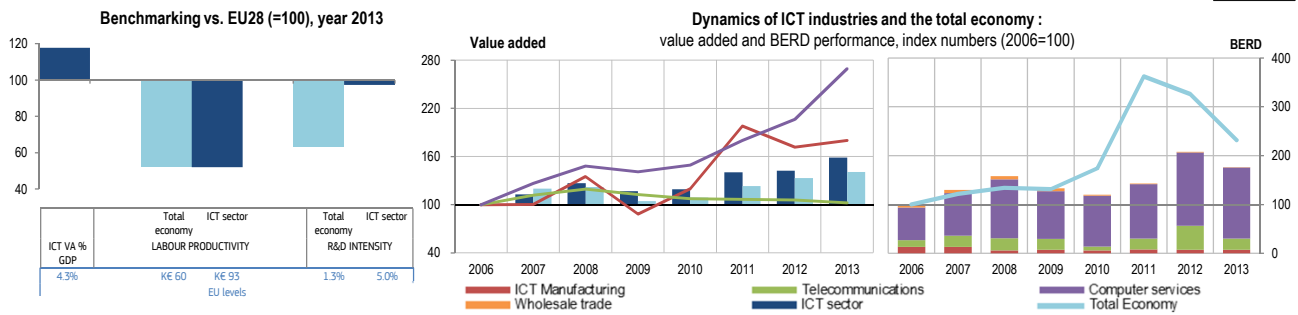
### R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Denmark	2013 vs 2006(=100) EU
<b>Total economy (% GDP)</b>	<b>1.6</b>	<b>1.8</b>	<b>1.9</b>	<b>2.1</b>	<b>2.0</b>	<b>2.0</b>	<b>2.0</b>	<b>2.0</b>	<b>(1.53)</b>	<b>123</b>	<b>114</b>
ICT sector	9.7	9.8	9.1	9.2	9.2	9.0	7.9	7.3	(1.46)	75	103
Manufacturing	10.8	9.8	9.5	17.3	10.8	12.8	18.4	16.9	(0.73)	156	122
Telecommunications	0.7	1.0	1.6	1.6	1.3	1.9	2.5	2.4	(1.28)	339	93
Computer services	20.5	19.2	17.2	14.0	14.2	14.4	11.1	9.8	(2.24)	48	128
Wholesale trade	3.0	4.1	0.7	4.9	4.4	4.0	3.7	3.2	(2.19)	106	116
Rest of the economy	1.3	1.5	1.7	1.8	1.7	1.7	1.8	1.8	(1.58)	136	117

Note: all monetary variables are expressed in euros at current prices and exchange rates.

% shares and (levels) correspond to the (%) ratio between the value of a variable (x) in country (i) and in the EU economy [= x<sub>i</sub>/x<sub>EU</sub>]. Percentage shares portray the weight of each country in the EU aggregate, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

## ESTONIA



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Estonia	EU
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### Economic and industry trends

#### Value added (€ bn)

<b>Total economy (GDP)</b>	14	16	17	14	15	17	18	19	0.1%	141	111
<b>ICT sector</b>	1	1	1	1	1	1	1	1	0.2%	-	109
Manufacturing	0	0	0	0	0	0	0	0	0.3%	-	69
Telecommunications	0	0	0	0	0	0	0	0	0.2%	-	85
Computer services	0	0	0	0	0	0	0	0	0.1%	-	140
Wholesale trade	0	0	0	0	0	0	0	0	0.1%	-	126
→ <b>ICT sector as a % of Total</b>	<b>4.5%</b>	<b>4.2%</b>	<b>4.7%</b>	<b>5.0%</b>	<b>4.9%</b>	<b>5.1%</b>	<b>4.8%</b>	<b>5.1%</b>			

#### Employment (thousands)

<b>Total economy</b>	642	643	642	577	548	584	594	601	0.3%	94	100
<b>ICT sector</b>	17	16	18	17	16	21	18	20	0.3%	118	107
Manufacturing	6	5	6	6	6	8	6	6	0.9%	105	74
Telecommunications	4	2	3	3	2	3	3	4	0.4%	108	89
Computer services	7	7	8	7	8	9	9	9	0.2%	138	127
Wholesale trade	1	1	1	1	1	1	1	1	0.1%	-	97
→ <b>ICT sector as a % of Total</b>	<b>2.6%</b>	<b>2.5%</b>	<b>2.7%</b>	<b>3.0%</b>	<b>2.8%</b>	<b>3.5%</b>	<b>3.1%</b>	<b>3.3%</b>			

#### Productivity of labour (PPS thous./person employed)

<b>Total economy</b>	21	25	26	25	27	29	30	32	(0.52)	150	111
<b>ICT sector</b>	36	43	44	41	46	41	47	49	(0.52)	135	101
Manufacturing	16	17	20	12	20	23	27	27	(0.38)	171	93
Telecommunications	81	149	130	106	197	98	115	77	(0.49)	94	96
Computer services	26	30	33	35	33	34	39	50	(0.63)	195	110
Wholesale trade	57	49	40	61	61	62	49	52	(0.57)	92	130

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

<b>Total economy</b>	67	82	90	88	117	243	219	156	0.1%	232	127
<b>ICT sector</b>	26	34	42	35	32	38	55	47	0.2%	177	112
Manufacturing	3	4	2	2	2	2	2	2	-	54	84
Telecommunications	4	6	7	6	2	6	13	6	0.2%	169	78
Computer services	18	23	32	26	27	29	40	38	0.3%	216	179
Wholesale trade	2	2	2	2	0	0	0	0	-	-	146
→ <b>ICT sector as a % of Total</b>	<b>39.4%</b>	<b>41.9%</b>	<b>46.4%</b>	<b>39.9%</b>	<b>27.1%</b>	<b>15.6%</b>	<b>25.1%</b>	<b>30.0%</b>			

#### R&D Intensity (BERD as a % of value added)

<b>Total economy (% GDP)</b>	0.5	0.5	0.5	0.6	0.8	1.5	1.2	0.8	(0.64)	165	114
<b>ICT sector</b>	4.4	5.0	5.4	5.0	4.4	4.4	6.4	4.9	(0.97)	111	103
Manufacturing	3.8	3.9	1.4	2.4	1.6	1.2	1.3	1.2	(0.05)	30	122
Telecommunications	1.3	1.9	1.9	1.8	0.6	1.9	4.2	2.1	(1.09)	165	93
Computer services	10.4	10.7	12.6	10.8	10.8	9.6	11.3	8.4	(1.91)	80	128
Wholesale trade	2.9	3.3	3.9	2.8	1.1	0.8	0.8	0.7	(0.46)	23	116
Rest of the economy	0.3	0.3	0.3	0.4	0.6	1.3	1.0	0.6	(0.54)	-	117

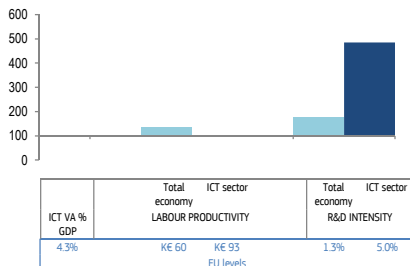
Note: all monetary variables are expressed in euros at current prices and exchange rates.

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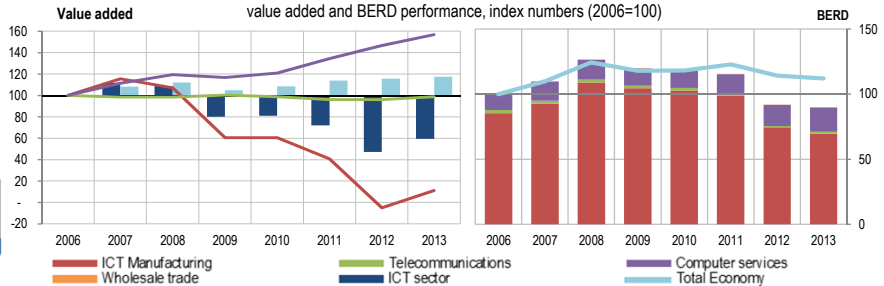
## FINLAND



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Finland	2013 vs 2006(=100) EU
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### Economic and industry trends

#### Value added (€ bn)

Total economy (GDP)	173	187	194	181	187	197	200	203	1.5%	117	111
ICT sector	15	17	16	12	12	11	7	9	1.5%	60	109
Manufacturing	9	10	9	5	5	4	0	1	2.0%	11	69
Telecommunications	2	2	2	2	2	2	2	2	1.3%	99	85
Computer services	3	4	4	4	4	4	5	5	1.6%	157	140
Wholesale trade	1	1	1	1	1	1	1	1	1.2%	-	126
→ ICT sector as a % of Total	8.6%	8.9%	8.4%	6.6%	6.5%	5.5%	3.5%	4.4%			

#### Employment (thousands)

Total economy	2,455	2,507	2,563	2,501	2,484	2,516	2,538	2,520	1.1%	103	100
ICT sector	116	114	111	105	102	101	101	99	1.6%	86	107
Manufacturing	36	36	33	30	27	24	24	18	2.7%	50	74
Telecommunications	19	17	15	14	13	13	13	13	1.2%	70	89
Computer services	52	52	54	53	54	57	58	61	1.6%	117	127
Wholesale trade	9	9	8	8	7	7	7	7	1.2%	82	97
→ ICT sector as a % of Total	4.7%	4.5%	4.3%	4.2%	4.1%	4.0%	4.0%	3.9%			

#### Productivity of labour (PPS thous./person employed)

Total economy	70	74	76	72	75	78	79	80	(1.33)	114	111
ICT sector	129	146	146	114	118	107	70	89	(0.96)	69	101
Manufacturing	243	281	286	180	197	150	0	55	(0.75)	23	93
Telecommunications	121	133	144	161	171	173	170	172	(1.09)	142	96
Computer services	62	69	71	70	72	76	82	83	(1.04)	134	110
Wholesale trade	67	69	80	69	79	87	90	87	(0.94)	129	130

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

Total economy	4,108	4,513	5,102	4,847	4,854	5,047	4,695	4,602	2.6%	112	127
ICT sector	2,395	2,632	3,031	2,874	2,831	2,768	2,203	2,151	7.4%	90	112
Manufacturing	2,044	2,221	2,610	2,504	2,465	2,370	1,787	1,667	14.5%	82	84
Telecommunications	61	55	55	45	44	38	25	35	1.1%	58	78
Computer services	287	354	364	321	320	356	388	446	3.3%	155	179
Wholesale trade	3	2	3	3	2	3	3	2	0.3%	71	146
→ ICT sector as a % of Total	58.3%	58.3%	59.4%	59.3%	58.3%	54.8%	46.9%	46.7%			

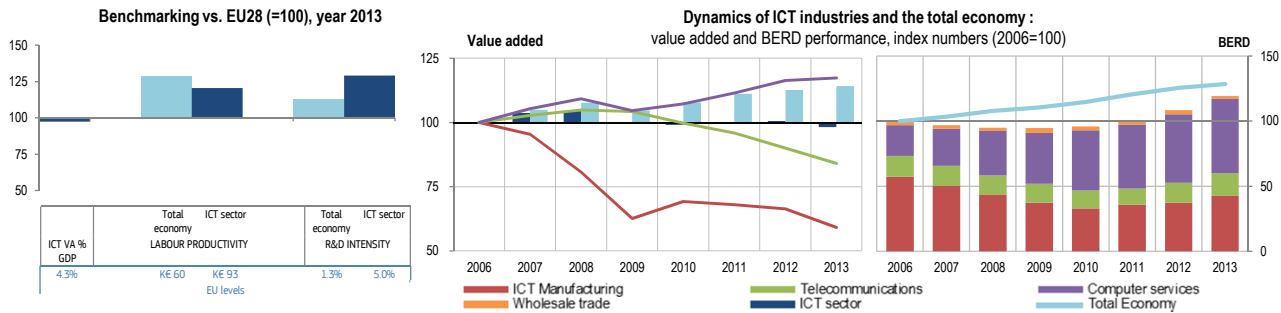
#### R&D Intensity (BERD as a % of value added)

Total economy (% GDP)	2.4	2.4	2.6	2.7	2.6	2.6	2.3	2.3	(1.76)	95	114
ICT sector	16.1	15.8	18.7	24.1	23.5	25.8	31.2	24.3	(4.86)	151	103
Manufacturing	23.1	21.7	27.5	46.7	45.9	65.4	-408.9	166.7	(7.22)	722	122
Telecommunications	2.7	2.5	2.5	2.0	2.0	1.8	1.2	1.6	(0.83)	58	93
Computer services	8.9	9.9	9.5	8.6	8.2	8.3	8.2	8.8	(2.02)	99	128
Wholesale trade	0.6	0.4	0.4	0.5	0.4	0.5	0.5	0.4	(0.27)	67	116
Rest of the economy	1.1	1.1	1.2	1.2	1.2	1.2	1.3	1.3	(1.13)	116	117

Note: all monetary variables are expressed in euros at current prices and exchange rates.

% shares and (levels) correspond to the (%) ratio between the value of a variable (x) in country (i) and in the EU economy [ $= x/x_{EU}$ ]. Percentage shares portray the weight of each country in the EU aggregate, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

## FRANCE



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	
											France EU

### Economic and industry trends

#### Value added (€ bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)
<b>Total economy (GDP)</b>	<b>1,853</b>	<b>1,946</b>	<b>1,996</b>	<b>1,939</b>	<b>1,998</b>	<b>2,059</b>	<b>2,087</b>	<b>2,117</b>	<b>15.6%</b>	<b>114</b>
<b>ICT sector</b>	<b>90</b>	<b>93</b>	<b>94</b>	<b>90</b>	<b>89</b>	<b>90</b>	<b>91</b>	<b>88</b>	<b>15.2%</b>	<b>98</b>
Manufacturing	8	8	7	5	6	6	5	5	9.8%	59
Telecommunications	30	31	31	31	30	29	27	25	14.7%	84
Computer services	46	48	50	48	49	51	54	54	17.5%	117
Wholesale trade	6	7	6	5	5	5	5	5	8.9%	76
→ <b>ICT sector as a % of Total</b>	<b>4.9%</b>	<b>4.8%</b>	<b>4.7%</b>	<b>4.6%</b>	<b>4.5%</b>	<b>4.4%</b>	<b>4.3%</b>	<b>4.2%</b>		

#### Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)
<b>Total economy</b>	<b>26,667</b>	<b>27,042</b>	<b>27,168</b>	<b>26,863</b>	<b>26,896</b>	<b>27,107</b>	<b>27,196</b>	<b>27,197</b>	<b>12.1%</b>	<b>102</b>
<b>ICT sector</b>	<b>765</b>	<b>770</b>	<b>781</b>	<b>765</b>	<b>758</b>	<b>766</b>	<b>787</b>	<b>786</b>	<b>12.6%</b>	<b>103</b>
Manufacturing	70	68	66	57	53	50	45	44	6.5%	63
Telecommunications	155	152	148	146	140	136	139	137	12.6%	88
Computer services	476	489	505	505	516	529	546	554	14.3%	116
Wholesale trade	63	60	62	57	49	51	57	50	8.8%	79
→ <b>ICT sector as a % of Total</b>	<b>2.9%</b>	<b>2.8%</b>	<b>2.9%</b>	<b>2.8%</b>	<b>2.8%</b>	<b>2.8%</b>	<b>2.9%</b>	<b>2.9%</b>		

#### Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)
<b>Total economy</b>	<b>69</b>	<b>72</b>	<b>73</b>	<b>72</b>	<b>74</b>	<b>76</b>	<b>77</b>	<b>78</b>	<b>(1.29)</b>	<b>112</b>
<b>ICT sector</b>	<b>118</b>	<b>121</b>	<b>120</b>	<b>117</b>	<b>118</b>	<b>118</b>	<b>115</b>	<b>113</b>	<b>(1.21)</b>	<b>96</b>
Manufacturing	117	116	100	90	108	113	122	110	(1.50)	93
Telecommunications	192	201	211	213	212	210	193	183	(1.16)	95
Computer services	97	99	100	95	96	97	98	97	(1.23)	101
Wholesale trade	96	108	96	93	93	90	83	92	(1.01)	96

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)
<b>Total economy</b>	<b>23,911</b>	<b>24,753</b>	<b>25,761</b>	<b>26,426</b>	<b>27,455</b>	<b>28,851</b>	<b>30,041</b>	<b>30,708</b>	<b>17.6%</b>	<b>128</b>
<b>ICT sector</b>	<b>4,784</b>	<b>4,640</b>	<b>4,536</b>	<b>4,528</b>	<b>4,584</b>	<b>4,783</b>	<b>5,191</b>	<b>5,705</b>	<b>19.7%</b>	<b>119</b>
Manufacturing	2,744	2,401	2,069	1,793	1,577	1,716	1,793	2,034	17.7%	74
Telecommunications	762	743	719	689	662	596	721	840	25.9%	110
Computer services	1,131	1,366	1,632	1,871	2,204	2,350	2,525	2,726	20.2%	241
Wholesale trade	146	130	115	175	142	121	152	105	13.8%	72
→ <b>ICT sector as a % of Total</b>	<b>20.0%</b>	<b>18.7%</b>	<b>17.6%</b>	<b>17.1%</b>	<b>16.7%</b>	<b>16.6%</b>	<b>17.3%</b>	<b>18.6%</b>		

#### R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)
<b>Total economy (% GDP)</b>	<b>1.3</b>	<b>1.3</b>	<b>1.3</b>	<b>1.4</b>	<b>1.4</b>	<b>1.4</b>	<b>1.4</b>	<b>1.5</b>	<b>(1.13)</b>	<b>112</b>
<b>ICT sector</b>	<b>5.3</b>	<b>5.0</b>	<b>4.8</b>	<b>5.0</b>	<b>5.1</b>	<b>5.3</b>	<b>5.7</b>	<b>6.4</b>	<b>(1.29)</b>	<b>121</b>
Manufacturing	33.3	30.5	31.1	34.8	27.6	30.6	32.8	41.7	(1.81)	125
Telecommunications	2.6	2.4	2.3	2.2	2.2	2.1	2.7	3.4	(1.77)	131
Computer services	2.5	2.8	3.2	3.9	4.5	4.6	4.7	5.1	(1.15)	205
Wholesale trade	2.4	2.0	2.0	3.3	3.1	2.6	3.2	2.3	(1.55)	94
Rest of the economy	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	(1.10)	114

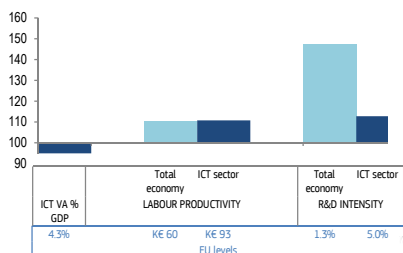
Note: all monetary variables are expressed in euros at current prices and exchange rates.

% shares and (levels) correspond to the (%) ratio between the value of a variable (x) in country (i) and in the EU economy [= x/x<sub>EU</sub>]. Percentage shares portray the weight of each country in the EU aggregate, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

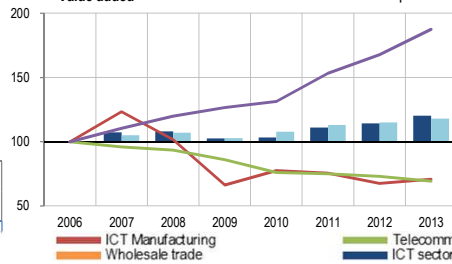
## GERMANY



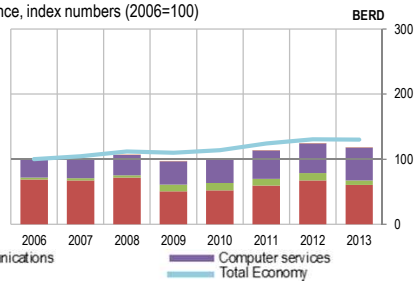
Benchmarking vs. EU28 (=100), year 2013



Value added



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU		2013 vs 2006(=100)	
								% shares (levels)		Germany	EU

### Economic and industry trends

#### Value added (€ bn)

Total economy (GDP)	2,393	2,513	2,562	2,460	2,580	2,703	2,755	2,821	20.8%	118	111
ICT sector	95	102	103	98	99	106	109	115	19.8%	120	109
Manufacturing	17	22	18	12	14	13	12	12	24.8%	71	69
Telecommunications	36	35	34	31	27	27	26	25	14.7%	69	85
Computer services	36	39	43	45	47	55	60	67	21.6%	187	140
Wholesale trade	6	7	9	10	11	11	11	11	20.6%	172	126
→ ICT sector as a % of Total	4.0%	4.1%	4.0%	4.0%	3.8%	3.9%	4.0%	4.1%			

#### Employment (thousands)

Total economy	39,635	40,325	40,856	40,892	41,020	41,577	42,060	42,328	18.9%	107	100
ICT sector	1,010	1,048	1,106	1,054	1,047	1,071	1,087	1,111	17.9%	110	107
Manufacturing	164	177	187	153	145	144	143	142	20.7%	86	74
Telecommunications	197	200	194	173	144	135	129	125	11.5%	63	89
Computer services	545	565	591	627	637	662	697	723	18.6%	133	127
Wholesale trade	104	106	133	101	121	130	117	121	21.3%	117	97
→ ICT sector as a % of Total	2.5%	2.6%	2.7%	2.6%	2.6%	2.6%	2.6%	2.6%			

#### Productivity of labour (PPS thous./person employed)

Total economy	60	62	63	60	63	65	65	67	(1.10)	110	111
ICT sector	94	98	93	93	94	99	100	103	(1.11)	109	101
Manufacturing	106	121	94	76	93	91	82	87	(1.20)	82	93
Telecommunications	184	173	174	180	191	201	205	201	(1.27)	109	96
Computer services	65	70	72	72	73	82	86	92	(1.16)	141	110
Wholesale trade	60	65	68	100	90	85	96	88	(0.96)	147	130

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

Total economy	41,148	43,034	46,073	45,275	46,929	51,077	53,790	53,566	30.7%	130	127
ICT sector	5,462	5,517	5,834	5,309	5,482	6,215	6,824	6,458	22.3%	118	112
Manufacturing	3,756	3,692	3,937	2,778	2,861	3,259	3,683	3,307	28.8%	88	84
Telecommunications	181	192	192	570	603	571	621	374	11.5%	207	78
Computer services	1,522	1,630	1,699	1,953	2,007	2,373	2,508	2,766	20.5%	182	179
Wholesale trade	3	5	6	9	11	12	13	11	1.5%	397	146
→ ICT sector as a % of Total	13.3%	12.8%	12.7%	11.7%	11.7%	12.2%	12.7%	12.1%			

#### R&D Intensity (BERD as a % of value added)

Total economy (% GDP)	1.7	1.7	1.8	1.8	1.8	1.9	2.0	1.9	(1.47)	110	114
ICT sector	5.7	5.4	5.7	5.4	5.6	5.9	6.3	5.6	(1.13)	98	103
Manufacturing	21.5	17.2	22.2	24.0	21.2	24.8	31.3	26.8	(1.16)	124	122
Telecommunications	0.5	0.6	0.6	1.8	2.2	2.1	2.4	1.5	(0.79)	299	93
Computer services	4.3	4.1	4.0	4.3	4.3	4.3	4.2	4.1	(0.95)	97	128
Wholesale trade	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	(0.07)	..	116
Rest of the economy	1.6	1.6	1.6	1.7	1.7	1.7	1.8	1.7	(1.55)	112	117

Note: all monetary variables are expressed in euros at current prices and exchange rates.

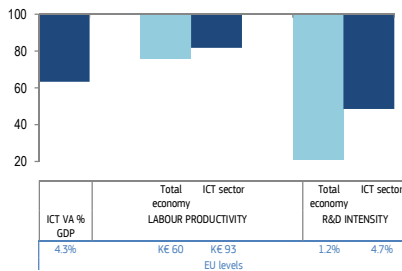
% shares and (levels) correspond to the (%) ratio between the value of a variable (x) in country (i) and in the EU economy [= x/x<sub>EU</sub>]. Percentage shares portray the weight of each country in the EU aggregate, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)



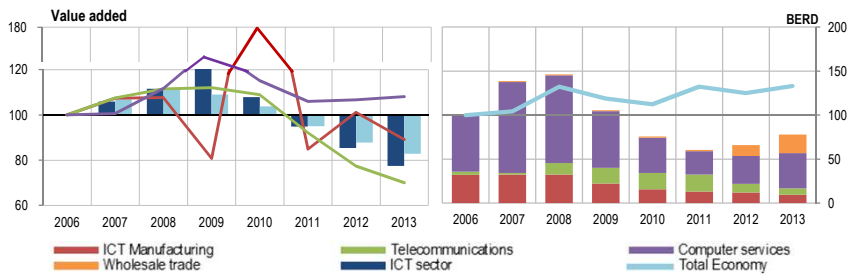
## GREECE



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Greece	EU
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### Economic and industry trends

#### Value added (€ bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Greece	EU
<b>Total economy (GDP)</b>	<b>218</b>	<b>233</b>	<b>242</b>	<b>238</b>	<b>226</b>	<b>207</b>	<b>191</b>	<b>180</b>	<b>1.3%</b>	<b>83</b>	<b>111</b>
ICT sector	6	7	7	8	7	6	5	5	0.8%	77	109
Manufacturing	0	0	0	0	0	0	0	0	0.2%	..	69
Telecommunications	5	5	5	5	5	4	4	3	1.9%	70	85
Computer services	1	1	1	1	1	1	1	1	0.4%	108	140
Wholesale trade	0	0	1	1	0	0	1	0	0.8%	..	126
→ ICT sector as a % of Total	2.9%	2.9%	2.9%	3.2%	3.0%	2.9%	2.8%	2.7%			

#### Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Greece	EU
<b>Total economy</b>	<b>4,731</b>	<b>4,795</b>	<b>4,856</b>	<b>4,829</b>	<b>4,705</b>	<b>4,382</b>	<b>4,105</b>	<b>3,957</b>	<b>1.8%</b>	<b>84</b>	<b>100</b>
ICT sector	68	69	70	67	70	67	68	64	1.0%	95	107
Manufacturing	3	3	3	2	3	1	2	2	0.2%	49	74
Telecommunications	30	28	30	28	29	28	28	27	2.5%	91	89
Computer services	24	27	26	26	27	27	28	28	0.7%	114	127
Wholesale trade	10	11	11	11	10	10	10	8	1.4%	74	97
→ ICT sector as a % of Total	1.4%	1.4%	1.4%	1.4%	1.5%	1.5%	1.7%	1.6%			

#### Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Greece	EU
<b>Total economy</b>	<b>46</b>	<b>49</b>	<b>50</b>	<b>49</b>	<b>48</b>	<b>47</b>	<b>47</b>	<b>46</b>	<b>(0.76)</b>	<b>99</b>	<b>111</b>
ICT sector	93	97	101	114	97	89	79	76	(0.82)	82	101
Manufacturing	35	40	40	43	65	68	59	63	(0.87)	180	93
Telecommunications	158	180	177	187	174	152	132	122	(0.77)	77	96
Computer services	41	37	43	50	43	39	38	39	(0.50)	95	110
Wholesale trade	47	46	49	90	32	49	54	52	(0.57)	110	130

### R&D performance

#### B Business expenditure in R&D (BERD - PPS mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Greece	EU
<b>Total economy</b>	<b>367</b>	<b>384</b>	<b>486</b>	<b>436</b>	<b>412</b>	<b>486</b>	<b>459</b>	<b>489</b>	<b>0.3%</b>	<b>133</b>	<b>127</b>
ICT sector	152	211	223	161	115	92	100	119	0.4%	78	112
Manufacturing	49	49	49	34	24	20	18	14	0.1%	29	84
Telecommunications	5	3	20	27	29	29	15	11	0.3%	206	78
Computer services	97	157	152	98	61	41	48	61	0.5%	63	179
Wholesale trade	1	2	2	2	2	2	19	32	4.2%	2175	146
→ ICT sector as a % of Total	41.4%	55.0%	45.8%	36.9%	28.0%	19.0%	21.9%	24.3%			

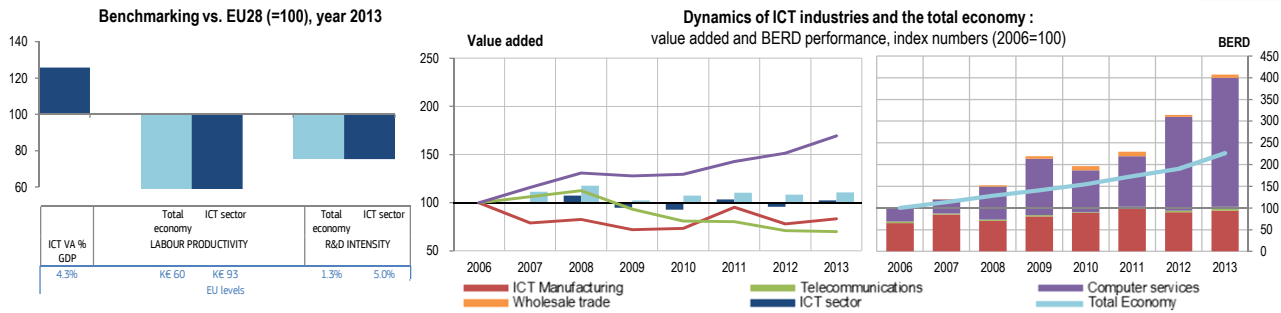
#### R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Greece	EU
<b>Total economy (% GDP)</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.3</b>	<b>(0.21)</b>	<b>..</b>	<b>114</b>
ICT sector	2.4	3.2	3.2	2.1	1.7	1.5	1.9	2.4	(0.49)	101	103
Manufacturing	44.9	42.6	42.1	38.4	11.7	21.8	16.4	14.8	(0.64)	33	122
Telecommunications	0.1	0.1	0.4	0.5	0.6	0.7	0.4	0.3	(0.18)	..	93
Computer services	9.5	15.5	13.4	7.4	5.2	3.8	4.4	5.6	(1.27)	58	128
Wholesale trade	0.3	0.3	0.3	0.2	0.7	0.5	3.4	7.9	(5.37)	..	116
Rest of the economy	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	(0.19)	..	117

Note: all monetary variables are expressed in euros at current prices and exchange rates.

% shares and (levels) correspond to the (%) ratio between the value of a variable (x) in country (i) and in the EU economy [= x/x<sub>EU</sub>]. Percentage shares portray the weight of each country in the EU aggregate, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

## HUNGARY



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	
											Hungary EU

### Economic and industry trends

#### Value added (€ bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	
<b>Total economy (GDP)</b>	<b>91</b>	<b>102</b>	<b>108</b>	<b>94</b>	<b>98</b>	<b>101</b>	<b>99</b>	<b>101</b>	<b>0.7%</b>	<b>111</b>	<b>111</b>
ICT sector	5	5	6	5	5	6	5	5	0.9%	102	109
Manufacturing	2	1	2	1	1	2	1	2	3.2%	83	69
Telecommunications	2	2	2	2	2	2	1	1	0.8%	70	85
Computer services	1	1	2	2	2	2	2	2	0.7%	170	140
Wholesale trade	0	0	0	0	0	0	0	0	0.6%	-	126
→ <b>ICT sector as a % of Total</b>	<b>5.8%</b>	<b>5.2%</b>	<b>5.3%</b>	<b>5.4%</b>	<b>5.0%</b>	<b>5.5%</b>	<b>5.2%</b>	<b>5.4%</b>			

#### Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	
<b>Total economy</b>	<b>4,192</b>	<b>4,198</b>	<b>4,115</b>	<b>4,013</b>	<b>4,002</b>	<b>4,003</b>	<b>4,008</b>	<b>4,046</b>	<b>1.8%</b>	<b>97</b>	<b>100</b>
ICT sector	163	180	155	139	150	169	162	156	2.5%	95	107
Manufacturing	87	105	79	68	78	87	78	65	9.6%	75	74
Telecommunications	24	22	21	22	21	23	22	22	2.0%	94	89
Computer services	50	49	51	44	45	54	56	63	1.6%	125	127
Wholesale trade	3	3	5	5	6	5	5	5	0.9%	215	97
→ <b>ICT sector as a % of Total</b>	<b>3.9%</b>	<b>4.3%</b>	<b>3.8%</b>	<b>3.5%</b>	<b>3.8%</b>	<b>4.2%</b>	<b>4.0%</b>	<b>3.8%</b>			

#### Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	
<b>Total economy</b>	<b>22</b>	<b>24</b>	<b>26</b>	<b>23</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>(0.41)</b>	<b>115</b>	<b>111</b>
ICT sector	33	29	37	36	33	33	31	35	(0.38)	108	101
Manufacturing	22	14	20	20	18	21	19	24	(0.33)	111	93
Telecommunications	85	96	108	86	76	69	64	64	(0.40)	75	96
Computer services	26	31	33	37	37	34	34	35	(0.44)	136	110
Wholesale trade	61	55	48	40	48	55	49	56	(0.61)	93	130

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	
<b>Total economy</b>	<b>435</b>	<b>492</b>	<b>557</b>	<b>611</b>	<b>674</b>	<b>752</b>	<b>825</b>	<b>983</b>	<b>0.6%</b>	<b>226</b>	<b>127</b>
ICT sector	50	61	77	110	99	116	158	206	0.7%	407	112
Manufacturing	33	43	35	41	45	50	45	47	0.4%	144	84
Telecommunications	2	1	2	2	1	2	2	5	0.1%	278	78
Computer services	15	16	38	65	49	59	109	150	1.1%	1000	179
Wholesale trade	1	0	1	3	5	5	2	4	0.5%	-	146
→ <b>ICT sector as a % of Total</b>	<b>11.6%</b>	<b>12.3%</b>	<b>13.8%</b>	<b>18.1%</b>	<b>14.7%</b>	<b>15.4%</b>	<b>19.2%</b>	<b>20.9%</b>			

#### R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	
<b>Total economy (% GDP)</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.8</b>	<b>1.0</b>	<b>(0.75)</b>	<b>204</b>	<b>114</b>
ICT sector	0.9	1.1	1.3	2.2	2.0	2.1	3.1	3.8	(0.75)	398	103
Manufacturing	1.7	2.9	2.3	3.0	3.2	2.8	3.1	3.0	(0.13)	173	122
Telecommunications	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.3	(0.17)	-	93
Computer services	1.2	1.1	2.3	4.0	2.9	3.2	5.6	6.9	(1.57)	590	128
Wholesale trade	0.6	0.2	0.6	1.5	1.8	1.9	0.8	1.3	(0.87)	213	116
Rest of the economy	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.8	(0.72)	-	117

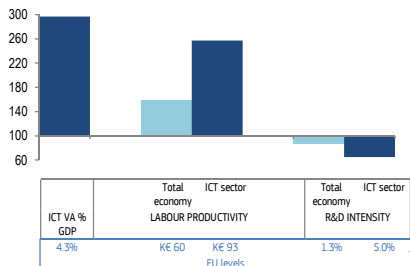
Note: all monetary variables are expressed in euros at current prices and exchange rates.

% shares and (levels) correspond to the (%) ratio between the value of a variable (x) in country (i) and in the EU economy [= x<sub>i</sub>/x<sub>EU</sub>]. Percentage shares portray the weight of each country in the EU aggregate, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

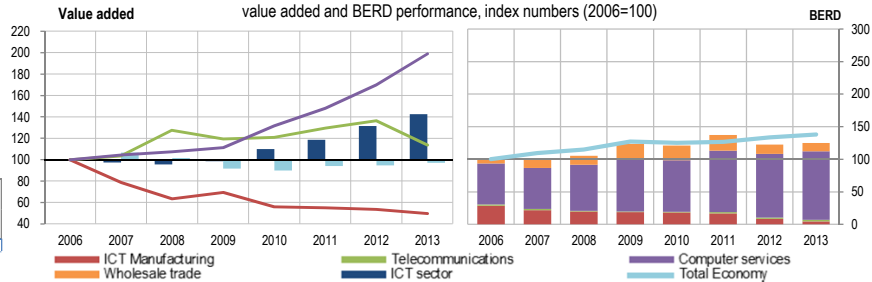
## IRELAND



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Ireland	EU
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### Economic and industry trends

#### Value added (€ bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Ireland	EU
<b>Total economy (GDP)</b>	<b>185</b>	<b>197</b>	<b>188</b>	<b>169</b>	<b>166</b>	<b>174</b>	<b>175</b>	<b>179</b>	<b>1.3%</b>	<b>97</b>	<b>111</b>
<b>ICT sector</b>	<b>16</b>	<b>16</b>	<b>15</b>	<b>16</b>	<b>18</b>	<b>19</b>	<b>21</b>	<b>23</b>	<b>3.9%</b>	<b>142</b>	<b>109</b>
Manufacturing	5	4	3	3	3	3	2	2	4.6%	50	69
Telecommunications	2	2	3	3	3	3	3	2	1.4%	114	85
Computer services	8	9	9	9	11	12	14	16	5.3%	199	140
Wholesale trade	1	1	1	1	2	1	2	2	3.3%	165	126
→ <b>ICT sector as a % of Total</b>	<b>8.7%</b>	<b>7.9%</b>	<b>8.2%</b>	<b>9.3%</b>	<b>10.6%</b>	<b>10.9%</b>	<b>12.1%</b>	<b>12.7%</b>			

#### Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Ireland	EU
<b>Total economy</b>	<b>2,053</b>	<b>2,143</b>	<b>2,129</b>	<b>1,962</b>	<b>1,883</b>	<b>1,849</b>	<b>1,839</b>	<b>1,882</b>	<b>0.8%</b>	<b>92</b>	<b>100</b>
<b>ICT sector</b>	<b>98</b>	<b>98</b>	<b>94</b>	<b>94</b>	<b>93</b>	<b>91</b>	<b>97</b>	<b>95</b>	<b>1.5%</b>	<b>97</b>	<b>107</b>
Manufacturing	28	26	27	24	22	20	21	17	2.5%	60	74
Telecommunications	21	21	21	21	20	21	19	18	1.6%	86	89
Computer services	46	46	42	44	46	46	52	53	1.4%	118	127
Wholesale trade	4	5	5	4	5	4	6	7	1.2%	173	97
→ <b>ICT sector as a % of Total</b>	<b>4.8%</b>	<b>4.6%</b>	<b>4.4%</b>	<b>4.8%</b>	<b>4.9%</b>	<b>4.9%</b>	<b>5.3%</b>	<b>5.1%</b>			

#### Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Ireland	EU
<b>Total economy</b>	<b>90</b>	<b>92</b>	<b>88</b>	<b>86</b>	<b>88</b>	<b>94</b>	<b>95</b>	<b>95</b>	<b>(1.58)</b>	<b>106</b>	<b>111</b>
<b>ICT sector</b>	<b>163</b>	<b>160</b>	<b>163</b>	<b>169</b>	<b>190</b>	<b>209</b>	<b>217</b>	<b>240</b>	<b>(2.57)</b>	<b>147</b>	<b>101</b>
Manufacturing	163	139	109	131	116	125	118	134	(1.84)	82	93
Telecommunications	105	107	131	121	133	136	157	139	(0.88)	133	96
Computer services	181	186	213	208	235	266	272	307	(3.87)	169	110
Wholesale trade	258	252	172	223	350	332	269	246	(2.69)	95	130

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Ireland	EU
<b>Total economy</b>	<b>1,466</b>	<b>1,603</b>	<b>1,687</b>	<b>1,868</b>	<b>1,834</b>	<b>1,860</b>	<b>1,962</b>	<b>2,022</b>	<b>1.2%</b>	<b>138</b>	<b>127</b>
<b>ICT sector</b>	<b>595</b>	<b>593</b>	<b>626</b>	<b>733</b>	<b>719</b>	<b>816</b>	<b>729</b>	<b>743</b>	<b>2.6%</b>	<b>125</b>	<b>112</b>
Manufacturing	170	131	117	111	108	102	51	28	0.2%	16	84
Telecommunications	11	10	8	6	6	12	13	15	0.4%	127	78
Computer services	374	375	420	481	472	559	580	625	4.6%	167	179
Wholesale trade	39	78	81	136	133	144	85	75	9.9%	191	146
→ <b>ICT sector as a % of Total</b>	<b>40.5%</b>	<b>37.0%</b>	<b>37.1%</b>	<b>39.2%</b>	<b>39.2%</b>	<b>43.9%</b>	<b>37.2%</b>	<b>36.7%</b>			

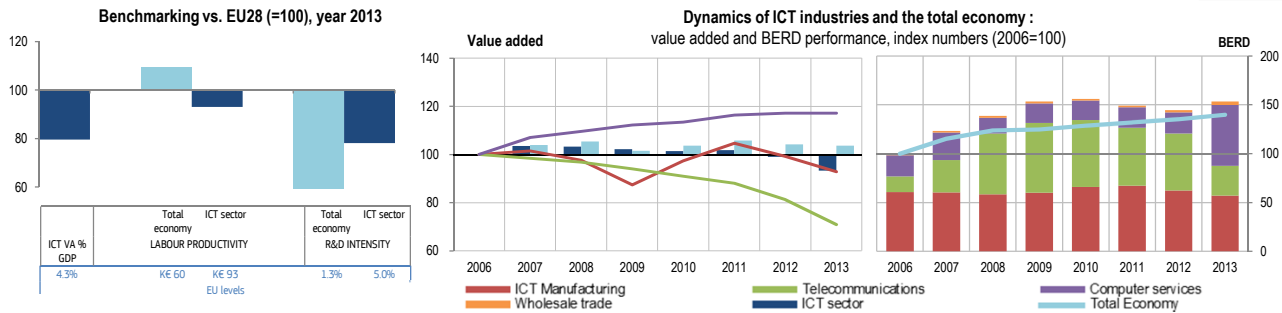
#### R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Ireland	EU
<b>Total economy (% GDP)</b>	<b>0.8</b>	<b>0.8</b>	<b>0.9</b>	<b>1.1</b>	<b>1.1</b>	<b>1.1</b>	<b>1.1</b>	<b>1.1</b>	<b>(0.87)</b>	<b>142</b>	<b>114</b>
<b>ICT sector</b>	<b>3.7</b>	<b>3.8</b>	<b>4.1</b>	<b>4.6</b>	<b>4.1</b>	<b>4.3</b>	<b>3.5</b>	<b>3.3</b>	<b>(0.65)</b>	<b>88</b>	<b>103</b>
Manufacturing	3.7	3.6	4.0	3.5	4.2	4.0	2.1	1.2	(0.05)	33	122
Telecommunications	0.5	0.4	0.3	0.2	0.2	0.4	0.4	0.6	(0.31)	112	93
Computer services	4.5	4.3	4.7	5.2	4.3	4.6	4.1	3.8	(0.87)	84	128
Wholesale trade	3.8	6.8	10.2	16.2	8.4	9.9	5.1	4.4	(3.03)	116	116
Rest of the economy	0.5	0.6	0.6	0.7	0.8	0.7	0.8	0.8	(0.73)	-	117

Note: all monetary variables are expressed in euros at current prices and exchange rates.

% shares and (levels) correspond to the (%) ratio between the value of a variable (x) in country (i) and in the EU economy [= x/x<sub>EU</sub>]. Percentage shares portray the weight of each country in the EU aggregate, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

## ITALY



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Italy	EU
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### Economic and industry trends

#### Value added (€ bn)

<b>Total economy (GDP)</b>	<b>1,549</b>	<b>1,610</b>	<b>1,633</b>	<b>1,574</b>	<b>1,606</b>	<b>1,639</b>	<b>1,615</b>	<b>1,607</b>	<b>11.9%</b>	<b>104</b>	<b>111</b>
ICT sector	59	61	61	60	60	60	58	55	9.4%	93	109
Manufacturing	5	5	5	5	5	5	5	5	9.7%	93	69
Telecommunications	28	28	27	26	25	25	23	20	11.6%	71	85
Computer services	23	24	25	25	26	26	26	26	8.6%	117	140
Wholesale trade	3	4	4	4	4	4	4	4	7.3%	125	126
→ ICT sector as a % of Total	<b>3.8%</b>	<b>3.8%</b>	<b>3.7%</b>	<b>3.8%</b>	<b>3.7%</b>	<b>3.7%</b>	<b>3.6%</b>	<b>3.4%</b>			

#### Employment (thousands)

<b>Total economy</b>	<b>24,984</b>	<b>25,295</b>	<b>25,349</b>	<b>24,926</b>	<b>24,766</b>	<b>24,843</b>	<b>24,765</b>	<b>24,323</b>	<b>10.8%</b>	<b>97</b>	<b>100</b>
ICT sector	653	654	652	653	637	637	636	631	10.1%	97	107
Manufacturing	89	87	84	79	75	77	76	73	10.7%	82	74
Telecommunications	121	118	116	113	108	104	99	95	8.8%	79	89
Computer services	376	382	389	400	394	397	401	406	10.4%	108	127
Wholesale trade	66	67	62	61	59	59	59	58	10.2%	87	97
→ ICT sector as a % of Total	<b>2.6%</b>	<b>2.6%</b>	<b>2.6%</b>	<b>2.6%</b>	<b>2.6%</b>	<b>2.6%</b>	<b>2.6%</b>	<b>2.6%</b>			

#### Productivity of labour (PPS thous./person employed)

<b>Total economy</b>	<b>62</b>	<b>64</b>	<b>64</b>	<b>63</b>	<b>65</b>	<b>66</b>	<b>65</b>	<b>66</b>	<b>(1.10)</b>	<b>107</b>	<b>111</b>
ICT sector	90	93	93	92	94	94	92	87	(0.93)	97	101
Manufacturing	58	60	60	57	67	71	68	66	(0.90)	114	93
Telecommunications	232	233	233	232	235	236	229	208	(1.32)	90	96
Computer services	60	63	64	63	65	66	66	65	(0.82)	109	110
Wholesale trade	46	58	61	63	59	60	65	66	(0.72)	143	130

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

<b>Total economy</b>	<b>8,210</b>	<b>9,455</b>	<b>10,173</b>	<b>10,238</b>	<b>10,579</b>	<b>10,825</b>	<b>11,107</b>	<b>11,480</b>	<b>6.6%</b>	<b>140</b>	<b>127</b>
ICT sector	1,394	1,717	1,934	2,140	2,177	2,082	2,017	2,138	7.4%	153	112
Manufacturing	849	843	813	835	920	937	870	796	6.9%	94	84
Telecommunications	220	462	868	998	956	828	814	426	13.1%	193	78
Computer services	304	390	226	281	277	293	301	865	6.4%	284	179
Wholesale trade	21	23	28	27	25	24	33	51	6.7%	247	146
→ ICT sector as a % of Total	<b>17.0%</b>	<b>18.2%</b>	<b>19.0%</b>	<b>20.9%</b>	<b>20.6%</b>	<b>19.2%</b>	<b>18.2%</b>	<b>18.6%</b>			

#### R&D Intensity (BERD as a % of value added)

<b>Total economy (% GDP)</b>	<b>0.5</b>	<b>0.6</b>	<b>0.6</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>(0.55)</b>	<b>135</b>	<b>114</b>
ICT sector	2.4	2.8	3.2	3.6	3.7	3.5	3.5	3.9	(0.78)	164	103
Manufacturing	16.4	16.0	16.1	18.5	18.3	17.3	16.9	16.6	(0.72)	101	122
Telecommunications	0.8	1.7	3.2	3.8	3.7	3.4	3.6	2.1	(1.13)	273	93
Computer services	1.3	1.6	0.9	1.1	1.1	1.1	1.1	3.3	(0.75)	243	128
Wholesale trade	0.7	0.6	0.7	0.7	0.7	0.7	0.8	1.3	(0.91)	197	116
Rest of the economy	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	(0.54)	-	117

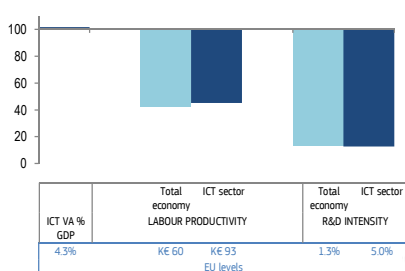
Note: all monetary variables are expressed in euros at current prices and exchange rates.

% shares and (levels) correspond to the (%) ratio between the value of a variable (x) in country (i) and in the EU economy [ $= x_i/x_{EU}$ ]. Percentage shares portray the weight of each country in the EU aggregate, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

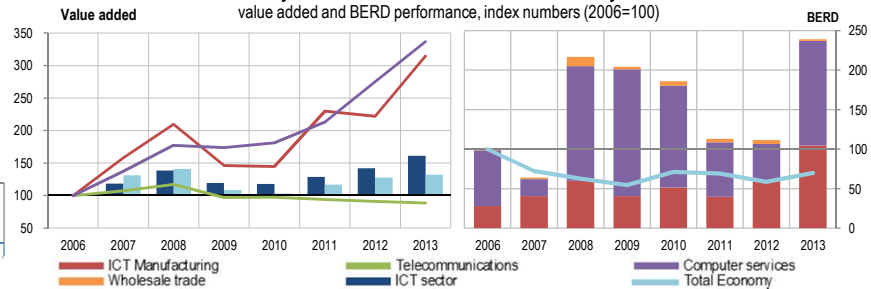
## LATVIA



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Latvia	EU
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### Economic and industry trends

#### Value added (€ bn)

<b>Total economy (GDP)</b>	<b>17</b>	<b>23</b>	<b>24</b>	<b>19</b>	<b>18</b>	<b>20</b>	<b>22</b>	<b>23</b>	<b>0.2%</b>	<b>132</b>	<b>111</b>
ICT sector	1	1	1	1	1	1	1	1	0.2%	..	109
Manufacturing	0	0	0	0	0	0	0	0	0.1%	..	69
Telecommunications	0	0	0	0	0	0	0	0	0.2%	..	85
Computer services	0	0	0	0	0	0	0	0	0.2%	..	140
Wholesale trade	0	0	0	0	0	0	0	0	0.2%	..	126
→ ICT sector as a % of Total	3.6%	3.2%	3.5%	3.9%	4.1%	4.0%	4.0%	4.4%			

#### Employment (thousands)

<b>Total economy</b>	<b>1,025</b>	<b>1,064</b>	<b>1,055</b>	<b>904</b>	<b>844</b>	<b>856</b>	<b>869</b>	<b>889</b>	<b>0.4%</b>	<b>87</b>	<b>100</b>
ICT sector	17	19	20	18	19	20	21	24	0.4%	139	107
Manufacturing	1	1	1	1	1	1	1	1	0.2%	83	74
Telecommunications	6	6	6	6	6	6	5	6	0.5%	98	89
Computer services	7	8	9	9	9	11	13	15	0.4%	219	127
Wholesale trade	3	3	4	3	2	2	2	2	0.4%	73	97
→ ICT sector as a % of Total	1.7%	1.8%	1.9%	2.0%	2.2%	2.4%	2.5%	2.7%			

#### Productivity of labour (PPS thous./person employed)

<b>Total economy</b>	<b>17</b>	<b>21</b>	<b>23</b>	<b>21</b>	<b>21</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>(0.43)</b>	<b>153</b>	<b>111</b>
ICT sector	36	39	42	40	39	39	41	42	(0.45)	116	101
Manufacturing	15	28	37	33	35	53	43	58	(0.80)	380	93
Telecommunications	66	66	72	63	60	58	65	60	(0.38)	90	96
Computer services	22	24	27	29	28	27	31	33	(0.42)	154	110
Wholesale trade	23	27	32	33	30	39	40	44	(0.48)	195	130

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

<b>Total economy</b>	<b>57</b>	<b>41</b>	<b>35</b>	<b>31</b>	<b>40</b>	<b>39</b>	<b>33</b>	<b>39</b>	<b>..</b>	<b>70</b>	<b>127</b>
ICT sector	3	2	6	5	5	3	3	6	..	239	112
Manufacturing	1	1	2	1	1	1	2	3	..	..	84
Telecommunications	-	-	-	-	-	-	-	-	..	..	78
Computer services	2	1	4	4	3	2	1	4	..	188	179
Wholesale trade	0	0	0	0	0	0	0	0	..	..	146
→ ICT sector as a % of Total	4.7%	4.2%	16.2%	17.5%	12.3%	7.7%	8.9%	16.1%			

#### R&D Intensity (BERD as a % of value added)

<b>Total economy (% GDP)</b>	<b>0.3</b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>(0.13)</b>	<b>..</b>	<b>114</b>
ICT sector	0.4	0.2	0.7	0.7	0.7	0.4	0.3	0.6	(0.13)	148	103
Manufacturing	3.3	3.0	3.3	3.2	4.2	2.0	3.2	3.9	(0.17)	118	122
Telecommunications	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.00)	..	93
Computer services	1.3	0.3	1.5	1.7	1.3	0.6	0.3	0.7	(0.16)	56	128
Wholesale trade	0.1	0.1	0.3	0.1	0.2	0.1	0.1	0.1	(0.04)	..	116
Rest of the economy	0.3	0.2	0.1	0.1	0.2	0.2	0.1	0.2	(0.14)	..	117

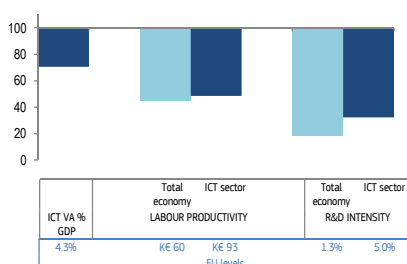
Note: all monetary variables are expressed in euros at current prices and exchange rates.

% shares and (levels) correspond to the (%) ratio between the value of a variable (x) in country (i) and in the EU economy [ $= x_i/x_{EU}$ ]. Percentage shares portray the weight of each country in the EU aggregate, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

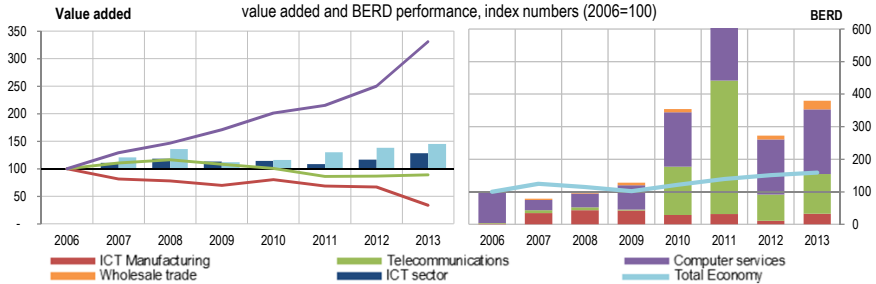
## LITHUANIA



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Lithuania	2013 vs 2006(=100) EU
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### Economic and industry trends

#### Value added (€ bn)

Total economy (GDP)	24	29	33	27	28	31	33	35	0.3%	145	111
ICT sector	1	1	1	1	1	1	1	1	0.2%	..	109
Manufacturing	0	0	0	0	0	0	0	0	0.1%	..	69
Telecommunications	1	1	1	1	1	0	0	0	0.3%	..	85
Computer services	0	0	0	0	0	0	0	0	0.1%	..	140
Wholesale trade	0	0	0	0	0	0	0	0	0.3%	..	126
→ ICT sector as a % of Total	3.4%	3.1%	3.0%	3.5%	3.4%	2.9%	2.9%	3.0%			

#### Employment (thousands)

Total economy	1,416	1,445	1,426	1,317	1,247	1,253	1,275	1,292	0.6%	91	100
ICT sector	16	16	22	19	20	25	26	23	0.4%	149	107
Manufacturing	3	3	3	2	2	2	2	1	0.2%	38	74
Telecommunications	4	5	7	4	5	7	7	7	0.6%	149	89
Computer services	6	6	10	10	11	13	15	13	0.3%	222	127
Wholesale trade	2	2	2	2	2	2	2	3	0.4%	126	97
→ ICT sector as a % of Total	1.1%	1.1%	1.5%	1.4%	1.6%	2.0%	2.0%	1.8%			

#### Productivity of labour (PPS thous./person employed)

Total economy	17	20	23	20	22	25	26	27	(0.45)	159	111
ICT sector	53	56	44	49	46	36	37	45	(0.48)	86	101
Manufacturing	29	26	31	28	32	30	33	26	(0.35)	90	93
Telecommunications	125	116	91	137	103	66	70	74	(0.47)	60	96
Computer services	21	27	18	20	23	21	21	31	(0.39)	149	110
Wholesale trade	29	32	36	35	33	38	47	52	(0.57)	181	130

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

Total economy	53	66	61	55	65	74	80	85	..	159	127
ICT sector	4	4	4	6	16	28	12	17	0.1%	380	112
Manufacturing	0	2	2	2	1	1	0	1	..	..	84
Telecommunications	0	0	0	0	7	18	4	5	0.2%	..	78
Computer services	4	1	2	3	8	7	8	9	0.1%	214	179
Wholesale trade	0	0	0	0	0	1	0	1	0.2%	..	146
→ ICT sector as a % of Total	8.4%	5.3%	7.3%	10.5%	24.6%	37.4%	15.2%	20.2%			

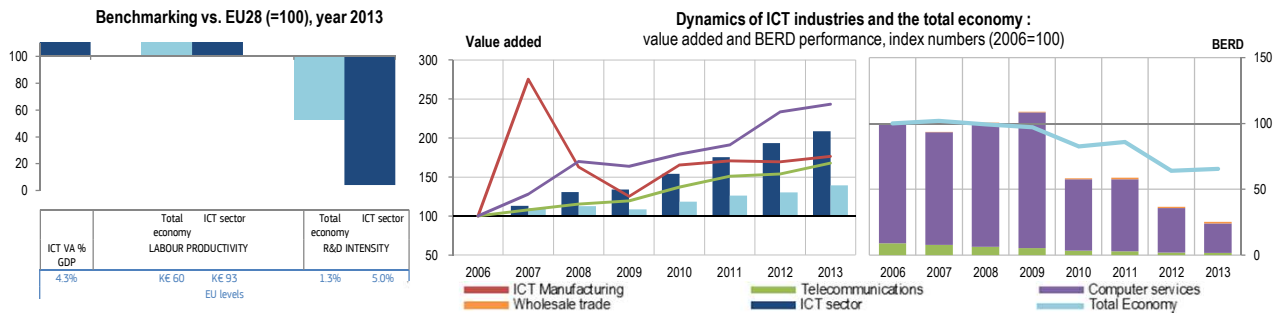
#### R&D Intensity (BERD as a % of value added)

Total economy (% GDP)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	(0.19)	..	114
ICT sector	0.5	0.4	0.5	0.6	1.7	3.1	1.3	1.6	(0.32)	296	103
Manufacturing	0.1	0.2	0.2	0.2	1.6	2.1	0.7	0.7	(0.19)	..	122
Telecommunications	0.0	0.1	0.1	0.0	1.2	3.9	0.8	1.1	(0.59)	..	93
Computer services	3.4	0.9	1.0	1.6	3.0	2.8	2.5	2.2	(0.50)	65	128
Wholesale trade	0.2	0.3	0.3	0.5	0.7	0.6	0.4	0.9	(0.62)	..	116
Rest of the economy	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	(0.18)	..	117

Note: all monetary variables are expressed in euros at current prices and exchange rates.

% shares and (levels) correspond to the (%) ratio between the value of a variable (x) in country (i) and in the EU economy [= x/x<sub>EU</sub>]. Percentage shares portray the weight of each country in the EU aggregate, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

## LUXEMBOURG



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Luxembourg	EU
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### Economic and industry trends

#### Value added (€ bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Luxembourg	EU
<b>Total economy (GDP)</b>	33	37	38	36	40	42	44	47	0.3%	139	111
<b>ICT sector</b>	1	2	2	2	2	3	3	3	0.5%	209	109
Manufacturing	0	0	0	0	0	0	0	0	-	-	69
Telecommunications	1	1	1	1	1	2	2	2	1.0%	168	85
Computer services	0	0	1	1	1	1	1	1	0.3%	-	140
Wholesale trade	0	0	0	0	0	0	0	0	0.9%	-	126
→ <b>ICT sector as a % of Total</b>	4.5%	4.6%	5.2%	5.5%	5.8%	6.2%	6.6%	6.7%			

#### Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Luxembourg	EU
<b>Total economy</b>	319	334	349	353	359	370	379	386	0.2%	121	100
<b>ICT sector</b>	10	12	13	13	13	14	16	16	0.3%	159	107
Manufacturing	-	0	0	0	0	0	0	0	-	-	74
Telecommunications	3	3	3	3	3	3	5	5	0.4%	181	89
Computer services	6	7	8	8	8	9	9	10	0.2%	154	127
Wholesale trade	1	2	2	2	2	2	2	2	0.3%	129	97
→ <b>ICT sector as a % of Total</b>	3.2%	3.5%	3.6%	3.7%	3.7%	3.8%	4.1%	4.2%			

#### Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Luxembourg	EU
<b>Total economy</b>	105	110	108	103	110	114	115	121	(2.00)	115	111
<b>ICT sector</b>	145	144	153	152	173	187	184	191	(2.05)	132	101
Manufacturing	0	94	29	44	52	52	52	55	(0.75)	-	93
Telecommunications	400	416	428	414	460	476	341	372	(2.36)	93	96
Computer services	58	63	76	72	78	78	92	91	(1.15)	158	110
Wholesale trade	59	58	77	87	119	195	246	263	(2.87)	448	130

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Luxembourg	EU
<b>Total economy</b>	485	495	482	471	400	416	310	318	0.2%	66	127
<b>ICT sector</b>	19	19	22	22	13	13	8	6	-	34	112
Manufacturing	-	2	3	2	2	2	2	2	-	-	84
Telecommunications	2	1	1	1	1	1	0	0	-	-	78
Computer services	17	16	18	19	10	10	6	4	-	25	179
Wholesale trade	0	0	0	0	0	0	0	0	-	-	146
→ <b>ICT sector as a % of Total</b>	3.9%	3.8%	4.5%	4.7%	3.2%	3.1%	2.7%	2.0%			

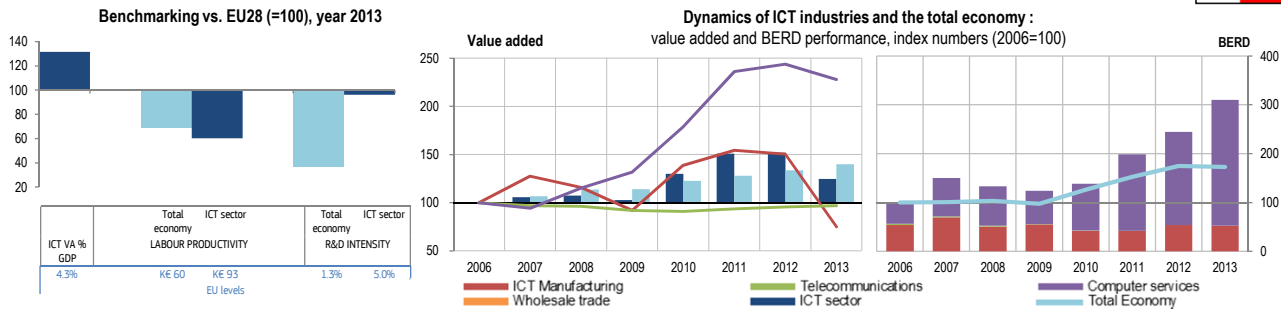
#### R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Luxembourg	EU
<b>Total economy (% GDP)</b>	1.5	1.3	1.3	1.3	1.0	1.0	0.7	0.7	(0.53)	47	114
<b>ICT sector</b>	1.3	1.1	1.1	1.1	0.6	0.5	0.3	0.2	(0.04)	-	103
Manufacturing	0.0	16.0	52.2	37.8	29.5	32.5	26.5	27.9	(1.21)	-	122
Telecommunications	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	(0.01)	-	93
Computer services	4.7	3.5	2.9	3.3	1.6	1.5	0.8	0.5	(0.11)	10	128
Wholesale trade	0.2	0.0	0.0	0.1	0.1	0.1	0.0	0.0	(0.03)	-	116
Rest of the economy	1.5	1.4	1.3	1.3	1.0	1.0	0.7	0.7	(0.64)	-	117

Note: all monetary variables are expressed in euros at current prices and exchange rates.

% shares and (levels) correspond to the (%) ratio between the value of a variable (x) in country (i) and in the EU economy [ $x_i/x_{EU}$ ]. Percentage shares portray the weight of each country in the EU aggregate, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

## MALTA



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	
											Malta
											EU

### Economic and industry trends

#### Value added (€ bn)

<b>Total economy (GDP)</b>	<b>5</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>8</b>	<b>0.1%</b>	<b>140</b>	<b>111</b>
<b>ICT sector</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0.1%</b>	<b>..</b>	<b>109</b>
Manufacturing	0	0	0	0	0	0	0	0	0.2%	..	69
Telecommunications	0	0	0	0	0	0	0	0	0.1%	..	85
Computer services	0	0	0	0	0	0	0	0	0.1%	..	140
Wholesale trade	0	0	0	0	0	0	0	0	..	..	126
→ <b>ICT sector as a % of Total</b>	<b>6.3%</b>	<b>6.3%</b>	<b>6.0%</b>	<b>5.7%</b>	<b>6.7%</b>	<b>7.5%</b>	<b>7.2%</b>	<b>5.6%</b>			

#### Employment (thousands)

<b>Total economy</b>	<b>154</b>	<b>157</b>	<b>161</b>	<b>161</b>	<b>164</b>	<b>168</b>	<b>172</b>	<b>179</b>	<b>0.1%</b>	<b>117</b>	<b>100</b>
<b>ICT sector</b>	<b>8</b>	<b>6</b>	<b>7</b>	<b>6</b>	<b>6</b>	<b>7</b>	<b>7</b>	<b>8</b>	<b>0.1%</b>	<b>100</b>	<b>107</b>
Manufacturing	4	3	3	2	2	2	2	2	0.2%	43	74
Telecommunications	2	2	2	2	2	2	2	2	0.2%	93	89
Computer services	2	1	2	2	2	3	3	4	0.1%	196	127
Wholesale trade	0	0	0	0	0	1	1	1	0.1%	..	97
→ <b>ICT sector as a % of Total</b>	<b>4.9%</b>	<b>4.0%</b>	<b>4.5%</b>	<b>3.9%</b>	<b>3.8%</b>	<b>4.1%</b>	<b>4.1%</b>	<b>4.2%</b>			

#### Productivity of labour (PPS thous./person employed)

<b>Total economy</b>	<b>35</b>	<b>37</b>	<b>38</b>	<b>38</b>	<b>40</b>	<b>41</b>	<b>42</b>	<b>42</b>	<b>(0.70)</b>	<b>120</b>	<b>111</b>
<b>ICT sector</b>	<b>45</b>	<b>58</b>	<b>50</b>	<b>55</b>	<b>70</b>	<b>75</b>	<b>74</b>	<b>56</b>	<b>(0.60)</b>	<b>125</b>	<b>101</b>
Manufacturing	30	51	38	45	88	94	94	52	(0.71)	173	93
Telecommunications	75	72	72	68	68	76	76	78	(0.50)	105	96
Computer services	46	56	51	58	65	76	71	54	(0.68)	116	110
Wholesale trade	18	19	20	18	27	13	13	13	(0.14)	72	130

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

<b>Total economy</b>	<b>21</b>	<b>21</b>	<b>21</b>	<b>20</b>	<b>26</b>	<b>32</b>	<b>36</b>	<b>36</b>	<b>..</b>	<b>173</b>	<b>127</b>
<b>ICT sector</b>	<b>7</b>	<b>10</b>	<b>9</b>	<b>8</b>	<b>9</b>	<b>13</b>	<b>16</b>	<b>20</b>	<b>0.1%</b>	<b>311</b>	<b>112</b>
Manufacturing	4	5	3	4	3	3	4	3	..	97	84
Telecommunications	0	0	0	0	0	-	-	-	..	..	78
Computer services	3	5	5	4	6	10	12	17	0.1%	596	179
Wholesale trade	-	-	-	-	-	-	-	0	..	..	146
→ <b>ICT sector as a % of Total</b>	<b>31.7%</b>	<b>47.3%</b>	<b>40.7%</b>	<b>40.4%</b>	<b>34.8%</b>	<b>41.4%</b>	<b>44.3%</b>	<b>57.0%</b>			

#### R&D Intensity (BERD as a % of value added)

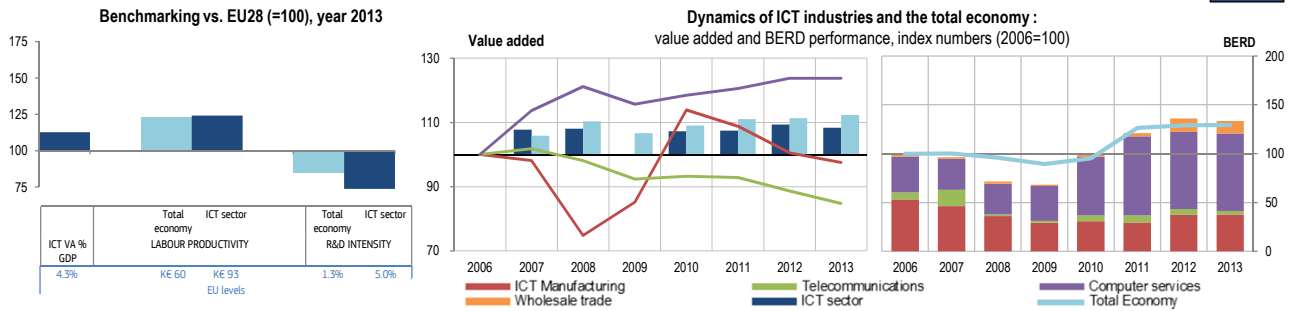
<b>Total economy (% GDP)</b>	<b>0.4</b>	<b>0.4</b>	<b>0.3</b>	<b>0.3</b>	<b>0.4</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>(0.37)</b>	<b>124</b>	<b>114</b>
<b>ICT sector</b>	<b>1.9</b>	<b>2.7</b>	<b>2.4</b>	<b>2.3</b>	<b>2.1</b>	<b>2.5</b>	<b>3.1</b>	<b>4.8</b>	<b>(0.96)</b>	<b>249</b>	<b>103</b>
Manufacturing	3.3	3.4	2.7	3.7	1.9	1.7	2.2	4.3	(0.19)	129	122
Telecommunications	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	(0.00)	..	93
Computer services	3.2	6.2	5.2	3.9	4.0	4.9	5.8	8.4	(1.93)	262	128
Wholesale trade	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	(0.18)	..	116
Rest of the economy	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.2	(0.19)	..	117

Note: all monetary variables are expressed in euros at current prices and exchange rates.

% shares and (levels) correspond to the (%) ratio between the value of a variable (x) in country (i) and in the EU economy [= x/x<sub>EU</sub>]. Percentage shares portray the weight of each country in the EU aggregate, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)



## NETHERLANDS



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	
											Netherlands EU

### Economic and industry trends

#### Value added (€ bn)

<b>Total economy (GDP)</b>	<b>579</b>	<b>613</b>	<b>639</b>	<b>618</b>	<b>632</b>	<b>643</b>	<b>645</b>	<b>651</b>	<b>4.8%</b>	<b>112</b>	<b>111</b>
ICT sector	29	31	31	29	31	31	32	31	5.4%	108	109
Manufacturing	2	2	1	1	2	2	2	2	3.2%	98	69
Telecommunications	10	10	10	9	9	9	9	8	4.9%	85	85
Computer services	12	13	14	13	14	14	14	14	4.6%	124	140
Wholesale trade	6	7	7	5	6	6	7	7	14.0%	120	126
→ ICT sector as a % of Total	5.0%	5.1%	4.9%	4.7%	4.9%	4.9%	4.9%	4.8%			

#### Employment (thousands)

<b>Total economy</b>	<b>8,519</b>	<b>8,771</b>	<b>8,914</b>	<b>8,838</b>	<b>8,778</b>	<b>8,854</b>	<b>8,836</b>	<b>8,754</b>	<b>3.9%</b>	<b>103</b>	<b>100</b>
ICT sector	261	272	276	269	261	264	270	271	4.4%	104	107
Manufacturing	23	22	18	14	11	11	10	10	1.5%	45	74
Telecommunications	42	41	39	36	33	32	32	31	2.9%	74	89
Computer services	140	151	163	164	162	166	171	174	4.5%	124	127
Wholesale trade	56	57	56	56	55	55	57	57	10.0%	101	97
→ ICT sector as a % of Total	3.1%	3.1%	3.1%	3.0%	3.0%	3.0%	3.1%	3.1%			

#### Productivity of labour (PPS thous./person employed)

<b>Total economy</b>	<b>68</b>	<b>70</b>	<b>72</b>	<b>70</b>	<b>72</b>	<b>73</b>	<b>73</b>	<b>74</b>	<b>(1.23)</b>	<b>109</b>	<b>111</b>
ICT sector	111	115	114	108	119	118	118	116	(1.24)	104	101
Manufacturing	72	71	67	98	163	164	164	157	(2.16)	219	93
Telecommunications	234	244	247	252	278	285	272	269	(1.71)	115	96
Computer services	82	86	86	81	84	83	84	82	(1.03)	100	110
Wholesale trade	109	116	118	95	118	116	126	129	(1.41)	118	130

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

<b>Total economy</b>	<b>5,480</b>	<b>5,495</b>	<b>5,263</b>	<b>4,900</b>	<b>5,218</b>	<b>6,922</b>	<b>7,078</b>	<b>7,095</b>	<b>4.1%</b>	<b>129</b>	<b>127</b>
ICT sector	868	838	620	594	864	1,051	1,182	1,160	4.0%	134	112
Manufacturing	461	401	313	254	269	257	325	329	2.9%	71	84
Telecommunications	63	146	16	16	52	64	51	31	1.0%	49	78
Computer services	319	275	273	312	518	702	687	688	5.1%	216	179
Wholesale trade	25	16	18	11	25	28	119	111	14.6%	441	146
→ ICT sector as a % of Total	15.8%	15.2%	11.8%	12.1%	16.6%	15.2%	16.7%	16.3%			

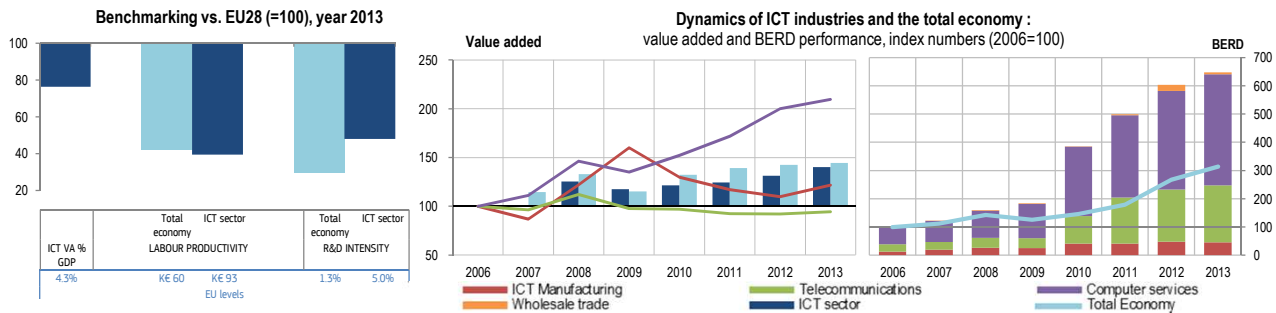
#### R&D Intensity (BERD as a % of value added)

<b>Total economy (% GDP)</b>	<b>0.9</b>	<b>0.9</b>	<b>0.8</b>	<b>0.8</b>	<b>0.8</b>	<b>1.1</b>	<b>1.1</b>	<b>1.1</b>	<b>(0.85)</b>	<b>115</b>	<b>114</b>
ICT sector	3.0	2.7	2.0	2.0	2.8	3.4	3.7	3.7	(0.74)	123	103
Manufacturing	28.4	25.2	25.8	18.4	14.5	14.5	19.9	20.8	(0.90)	73	122
Telecommunications	0.6	1.5	0.2	0.2	0.6	0.7	0.6	0.4	(0.20)	58	93
Computer services	2.8	2.1	2.0	2.3	3.8	5.1	4.8	4.8	(1.10)	174	128
Wholesale trade	0.4	0.2	0.3	0.2	0.4	0.4	1.7	1.5	(1.04)	367	116
Rest of the economy	0.8	0.8	0.8	0.7	0.7	1.0	1.0	1.0	(0.85)	..	117

Note: all monetary variables are expressed in euros at current prices and exchange rates.

% shares and (levels) correspond to the (%) ratio between the value of a variable (x) in country (i) and in the EU economy [= x/x<sub>EU</sub>]. Percentage shares portray the weight of each country in the EU aggregate, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

## POLAND



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	Poland	EU
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### Economic and industry trends

#### Value added (€ bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	Poland	EU
<b>Total economy (GDP)</b>	<b>273</b>	<b>314</b>	<b>364</b>	<b>315</b>	<b>362</b>	<b>380</b>	<b>389</b>	<b>395</b>	<b>2.9%</b>	<b>144</b>	<b>111</b>	
ICT sector	9	9	12	11	11	11	12	13	2.2%	140	109	
Manufacturing	1	1	1	2	1	1	1	1	2.6%	122	69	
Telecommunications	5	5	6	5	5	5	5	5	2.9%	94	85	
Computer services	3	3	4	4	4	5	5	6	1.8%	210	140	
Wholesale trade	0	0	0	0	1	1	1	1	1.9%	-	126	
→ ICT sector as a % of Total	3.4%	2.9%	3.2%	3.4%	3.1%	3.0%	3.1%	3.3%				

#### Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	Poland	EU
<b>Total economy</b>	<b>14,504</b>	<b>15,156</b>	<b>15,732</b>	<b>15,789</b>	<b>15,370</b>	<b>15,457</b>	<b>15,475</b>	<b>15,464</b>	<b>6.9%</b>	<b>107</b>	<b>100</b>	
ICT sector	252	293	309	320	312	313	336	350	5.6%	139	107	
Manufacturing	67	72	75	68	67	66	67	61	8.9%	91	74	
Telecommunications	94	102	101	104	100	95	93	97	9.0%	104	89	
Computer services	87	114	126	141	135	140	164	178	4.6%	205	127	
Wholesale trade	4	5	7	8	10	12	12	14	2.4%	330	97	
→ ICT sector as a % of Total	1.7%	1.9%	2.0%	2.0%	2.0%	2.0%	2.2%	2.3%				

#### Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	Poland	EU
<b>Total economy</b>	<b>19</b>	<b>21</b>	<b>23</b>	<b>20</b>	<b>24</b>	<b>25</b>	<b>25</b>	<b>26</b>	<b>(0.42)</b>	<b>135</b>	<b>111</b>	
ICT sector	37	32	37	34	36	37	36	37	(0.40)	101	101	
Manufacturing	16	13	17	25	21	19	18	21	(0.29)	134	93	
Telecommunications	56	49	58	49	51	51	52	51	(0.32)	91	96	
Computer services	31	27	32	26	31	33	33	32	(0.40)	102	110	
Wholesale trade	46	48	57	42	61	57	55	72	(0.79)	157	130	

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	Poland	EU
<b>Total economy</b>	<b>477</b>	<b>535</b>	<b>679</b>	<b>597</b>	<b>694</b>	<b>855</b>	<b>1,276</b>	<b>1,499</b>	<b>0.9%</b>	<b>314</b>	<b>127</b>	
ICT sector	48	59	77	88	185	239	289	310	1.1%	647	112	
Manufacturing	6	9	12	12	20	20	23	22	0.2%	361	84	
Telecommunications	13	13	17	17	47	78	88	97	3.0%	771	78	
Computer services	29	36	46	58	118	139	167	188	1.4%	648	179	
Wholesale trade	0	0	1	1	1	2	10	3	0.4%	-	146	
→ ICT sector as a % of Total	10.0%	11.0%	11.3%	14.7%	26.6%	28.0%	22.6%	20.7%				

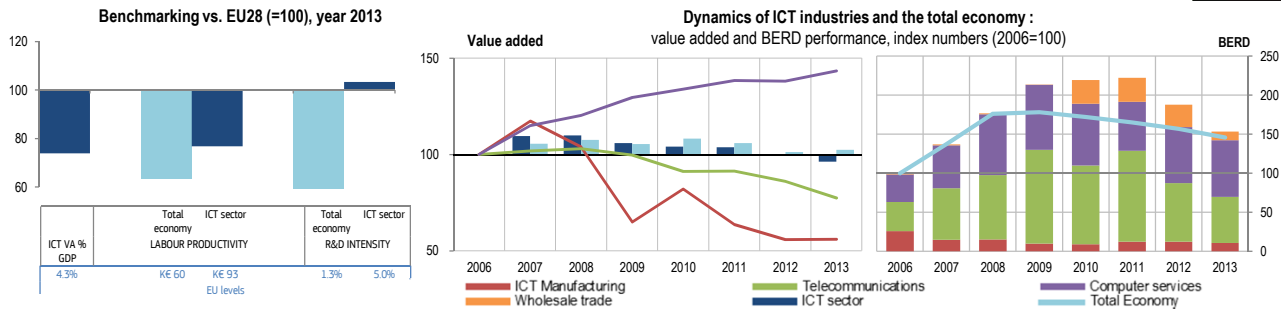
#### R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	Poland	EU
<b>Total economy (% GDP)</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.3</b>	<b>0.4</b>	<b>(0.29)</b>	<b>-</b>	<b>114</b>	
ICT sector	0.5	0.6	0.7	0.8	1.7	2.1	2.4	2.4	(0.48)	461	103	
Manufacturing	0.6	1.0	1.0	0.7	1.4	1.6	2.0	1.7	(0.07)	296	122	
Telecommunications	0.2	0.3	0.3	0.3	0.9	1.6	1.8	2.0	(1.03)	-	93	
Computer services	1.1	1.2	1.2	1.6	2.8	3.0	3.1	3.3	(0.76)	310	128	
Wholesale trade	0.1	0.1	0.3	0.3	0.1	0.2	1.6	0.3	(0.20)	-	116	
Rest of the economy	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.3	(0.28)	-	117	

Note: all monetary variables are expressed in euros at current prices and exchange rates.

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## PORTUGAL



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Portugal	EU
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### Economic and industry trends

#### Value added (€ bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Portugal	EU
<b>Total economy (GDP)</b>	166	175	179	175	180	176	168	170	1.3%	102	111
<b>ICT sector</b>	6	6	6	6	6	6	6	5	0.9%	96	109
Manufacturing	1	1	1	0	1	0	0	0	0.7%	-	69
Telecommunications	3	3	3	3	3	3	3	3	1.5%	77	85
Computer services	1	2	2	2	2	2	2	2	0.6%	143	140
Wholesale trade	0	1	0	1	1	1	1	1	1.1%	-	126
→ <b>ICT sector as a % of Total</b>	<b>3.4%</b>	<b>3.5%</b>	<b>3.4%</b>	<b>3.4%</b>	<b>3.2%</b>	<b>3.3%</b>	<b>3.3%</b>	<b>3.2%</b>			

#### Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Portugal	EU
<b>Total economy</b>	5,061	5,062	5,080	4,942	4,871	4,777	4,581	4,450	2.0%	88	100
<b>ICT sector</b>	64	63	65	67	68	72	74	75	1.2%	117	107
Manufacturing	11	11	10	9	8	8	8	8	1.1%	72	74
Telecommunications	14	13	14	14	14	14	15	15	1.3%	107	89
Computer services	34	32	34	37	39	42	44	46	1.2%	137	127
Wholesale trade	6	7	8	8	8	8	8	7	1.2%	109	97
→ <b>ICT sector as a % of Total</b>	<b>1.3%</b>	<b>1.3%</b>	<b>1.3%</b>	<b>1.4%</b>	<b>1.4%</b>	<b>1.5%</b>	<b>1.6%</b>	<b>1.7%</b>			

#### Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Portugal	EU
<b>Total economy</b>	33	35	35	36	37	37	37	38	(0.63)	116	111
<b>ICT sector</b>	87	97	94	89	85	81	75	72	(0.77)	82	101
Manufacturing	57	68	64	47	63	48	42	45	(0.61)	78	93
Telecommunications	244	262	251	242	216	222	194	177	(1.12)	72	96
Computer services	39	47	47	47	46	44	42	41	(0.52)	105	110
Wholesale trade	53	69	63	63	68	66	70	85	(0.93)	161	130

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Portugal	EU
<b>Total economy</b>	736	1,011	1,295	1,311	1,266	1,216	1,153	1,073	0.6%	146	127
<b>ICT sector</b>	182	249	320	387	398	403	341	279	1.0%	153	112
Manufacturing	47	27	28	18	17	23	22	20	0.2%	42	84
Telecommunications	68	120	149	218	183	211	136	107	3.3%	158	78
Computer services	64	99	141	150	144	114	130	131	1.0%	206	179
Wholesale trade	3	3	2	1	55	55	52	21	2.7%	701	146
→ <b>ICT sector as a % of Total</b>	<b>24.7%</b>	<b>24.6%</b>	<b>24.7%</b>	<b>29.5%</b>	<b>31.4%</b>	<b>33.1%</b>	<b>29.6%</b>	<b>26.0%</b>			

#### R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Portugal	EU
<b>Total economy (% GDP)</b>	0.4	0.6	0.7	0.7	0.7	0.7	0.7	0.6	(0.49)	142	114
<b>ICT sector</b>	3.2	4.0	5.2	6.5	6.8	6.9	6.1	5.2	(1.03)	159	103
Manufacturing	7.6	3.7	4.3	4.6	3.3	5.7	6.4	5.6	(0.24)	74	122
Telecommunications	2.0	3.5	4.3	6.6	6.0	6.9	4.7	4.2	(2.19)	204	93
Computer services	4.8	6.5	8.9	8.8	8.1	6.2	7.1	6.9	(1.58)	144	128
Wholesale trade	0.9	0.5	0.4	0.2	10.6	10.2	9.6	3.5	(2.40)	399	116
Rest of the economy	0.3	0.5	0.6	0.5	0.5	0.5	0.5	0.5	(0.43)	-	117

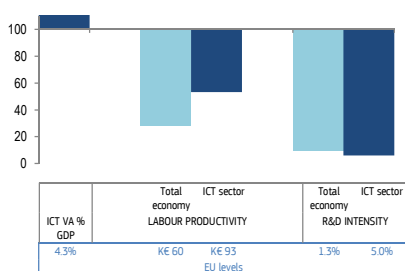
Note: all monetary variables are expressed in euros at current prices and exchange rates.

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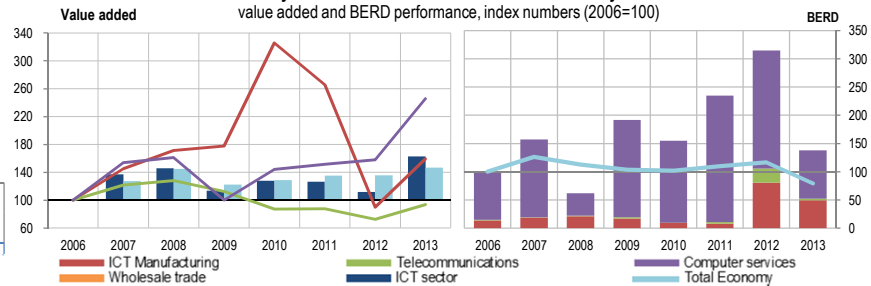
## ROMANIA



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Romania	EU
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### Economic and industry trends

#### Value added (€ bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Romania	EU
<b>Total economy (GDP)</b>	<b>98</b>	<b>125</b>	<b>142</b>	<b>120</b>	<b>127</b>	<b>133</b>	<b>134</b>	<b>144</b>	<b>1.1%</b>	<b>147</b>	<b>111</b>
<b>ICT sector</b>	<b>5</b>	<b>7</b>	<b>8</b>	<b>6</b>	<b>7</b>	<b>7</b>	<b>6</b>	<b>9</b>	<b>1.5%</b>	<b>163</b>	<b>109</b>
Manufacturing	0	1	1	1	1	1	0	1	1.4%	..	69
Telecommunications	3	3	3	3	2	2	2	2	1.4%	94	85
Computer services	2	3	3	2	3	3	3	5	1.7%	246	140
Wholesale trade	0	0	0	0	0	0	0	0	0.6%	..	126
→ <b>ICT sector as a % of Total</b>	<b>5.4%</b>	<b>5.8%</b>	<b>5.4%</b>	<b>5.0%</b>	<b>5.3%</b>	<b>5.0%</b>	<b>4.4%</b>	<b>6.0%</b>			

#### Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Romania	EU
<b>Total economy</b>	<b>9,331</b>	<b>9,365</b>	<b>9,366</b>	<b>9,181</b>	<b>9,156</b>	<b>9,082</b>	<b>8,645</b>	<b>8,591</b>	<b>3.8%</b>	<b>92</b>	<b>100</b>
<b>ICT sector</b>	<b>160</b>	<b>160</b>	<b>159</b>	<b>142</b>	<b>133</b>	<b>145</b>	<b>169</b>	<b>173</b>	<b>2.8%</b>	<b>108</b>	<b>107</b>
Manufacturing	52	58	55	37	28	31	33	37	5.4%	71	74
Telecommunications	68	68	66	44	41	40	54	52	4.8%	77	89
Computer services	30	22	24	51	58	68	75	76	2.0%	258	127
Wholesale trade	11	13	14	11	6	7	7	7	1.2%	67	97
→ <b>ICT sector as a % of Total</b>	<b>1.7%</b>	<b>1.7%</b>	<b>1.7%</b>	<b>1.5%</b>	<b>1.5%</b>	<b>1.6%</b>	<b>2.0%</b>	<b>2.0%</b>			

#### Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Romania	EU
<b>Total economy</b>	<b>11</b>	<b>13</b>	<b>15</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>15</b>	<b>17</b>	<b>(0.28)</b>	<b>159</b>	<b>111</b>
<b>ICT sector</b>	<b>33</b>	<b>45</b>	<b>48</b>	<b>42</b>	<b>51</b>	<b>46</b>	<b>35</b>	<b>50</b>	<b>(0.53)</b>	<b>151</b>	<b>101</b>
Manufacturing	8	11	13	21	50	36	12	18	(0.25)	224	93
Telecommunications	38	46	50	67	55	57	35	46	(0.29)	121	96
Computer services	71	146	144	42	52	47	44	68	(0.86)	95	110
Wholesale trade	15	18	19	20	13	13	43	42	(0.46)	275	130

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Romania	EU
<b>Total economy</b>	<b>215</b>	<b>272</b>	<b>242</b>	<b>223</b>	<b>220</b>	<b>237</b>	<b>251</b>	<b>171</b>	<b>0.1%</b>	<b>79</b>	<b>127</b>
<b>ICT sector</b>	<b>18</b>	<b>29</b>	<b>11</b>	<b>35</b>	<b>29</b>	<b>43</b>	<b>59</b>	<b>26</b>	<b>0.1%</b>	<b>141</b>	<b>112</b>
Manufacturing	3	3	4	3	2	1	15	9	0.1%	355	84
Telecommunications	0	0	0	0	0	1	5	0	..	..	78
Computer services	16	25	7	32	27	41	38	16	0.1%	101	179
Wholesale trade	-	-	-	0	0	0	1	1	0.1%	..	146
→ <b>ICT sector as a % of Total</b>	<b>8.5%</b>	<b>10.6%</b>	<b>4.7%</b>	<b>15.8%</b>	<b>13.0%</b>	<b>18.3%</b>	<b>23.5%</b>	<b>15.1%</b>			

#### R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Romania	EU
<b>Total economy (% GDP)</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.1</b>	<b>(0.09)</b>	<b>..</b>	<b>114</b>
<b>ICT sector</b>	<b>0.3</b>	<b>0.4</b>	<b>0.1</b>	<b>0.6</b>	<b>0.4</b>	<b>0.6</b>	<b>1.0</b>	<b>0.3</b>	<b>(0.06)</b>	<b>86</b>	<b>103</b>
Manufacturing	0.6	0.6	0.5	0.4	0.1	0.1	3.8	1.3	(0.06)	223	122
Telecommunications	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	(0.01)	..	93
Computer services	0.7	0.8	0.2	1.5	0.9	1.3	1.2	0.3	(0.07)	41	128
Wholesale trade	0.0	0.0	0.0	0.0	0.1	0.1	0.4	0.2	(0.12)	..	116
Rest of the economy	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	(0.10)	..	117

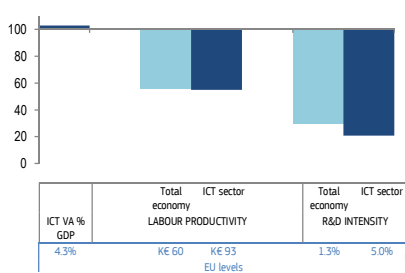
Note: all monetary variables are expressed in euros at current prices and exchange rates.

% shares and (levels) correspond to the (%) ratio between the value of a variable (x) in country (i) and in the EU economy [ $= x_i/x_{EU}$ ]. Percentage shares portray the weight of each country in the EU aggregate, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

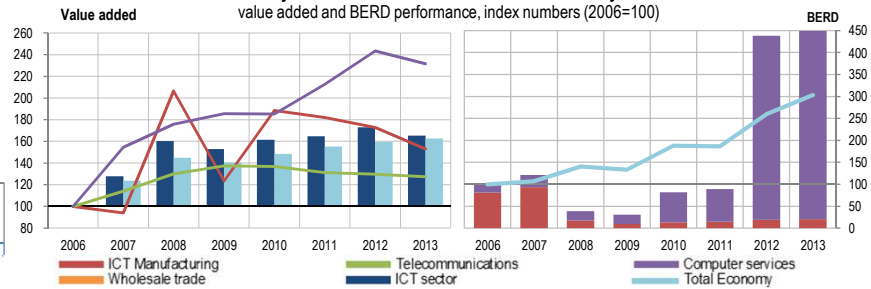
## SLOVAKIA



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	Slovakia	EU
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### Economic and industry trends

#### Value added (€ bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	Slovakia	EU
<b>Total economy (GDP)</b>	45	56	66	64	67	70	72	74	0.5%	163	111	
<b>ICT sector</b>	2	3	3	3	3	3	3	3	0.6%	165	109	
Manufacturing	0	0	1	0	1	1	1	1	1.0%	..	69	
Telecommunications	1	1	1	1	1	1	1	1	0.6%	..	85	
Computer services	1	1	1	1	1	1	2	2	0.5%	..	140	
Wholesale trade	0	0	0	0	0	0	0	0	0.3%	..	126	
→ <b>ICT sector as a % of Total</b>	4.4%	4.5%	4.8%	4.7%	4.7%	4.6%	4.7%	4.4%				

#### Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	Slovakia	EU
<b>Total economy</b>	2,132	2,177	2,247	2,203	2,170	2,208	2,209	2,192	1.0%	103	100	
<b>ICT sector</b>	56	60	66	69	60	63	62	64	1.0%	113	107	
Manufacturing	16	17	20	20	18	15	14	14	2.0%	89	74	
Telecommunications	10	9	10	10	10	10	10	11	1.0%	107	89	
Computer services	25	28	32	33	30	34	35	37	0.9%	144	127	
Wholesale trade	5	6	5	6	3	3	3	3	0.4%	47	97	
→ <b>ICT sector as a % of Total</b>	2.6%	2.8%	2.9%	3.1%	2.8%	2.8%	2.8%	2.9%				

#### Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	Slovakia	EU
<b>Total economy</b>	21	26	29	29	31	32	33	34	(0.56)	158	111	
<b>ICT sector</b>	35	42	48	44	53	52	55	51	(0.55)	146	101	
Manufacturing	21	18	34	21	35	39	41	37	(0.50)	172	93	
Telecommunications	85	101	114	115	117	113	113	101	(0.64)	119	96	
Computer services	26	37	37	37	42	42	46	42	(0.53)	161	110	
Wholesale trade	25	38	45	35	60	39	47	55	(0.61)	218	130	

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	Slovakia	EU
<b>Total economy</b>	93	100	131	124	175	174	242	283	0.2%	303	127	
<b>ICT sector</b>	7	9	3	3	6	7	32	34	0.1%	465	112	
Manufacturing	6	7	1	1	1	1	1	1	..	25	84	
Telecommunications	-	-	0	0	0	1	1	1	..	..	78	
Computer services	1	2	2	2	5	5	30	31	0.2%	2313	179	
Wholesale trade	-	-	-	-	-	-	-	0	0.1%	..	146	
→ <b>ICT sector as a % of Total</b>	7.8%	8.8%	2.5%	2.1%	3.6%	4.0%	13.3%	11.9%				

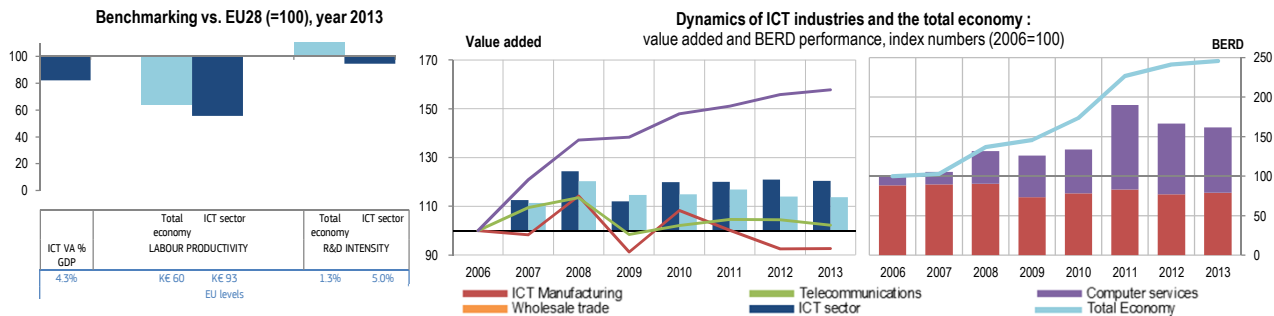
#### R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	Slovakia	EU
<b>Total economy (% GDP)</b>	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.4	(0.30)	..	114	
<b>ICT sector</b>	0.4	0.3	0.1	0.1	0.2	0.2	0.9	1.0	(0.21)	282	103	
Manufacturing	1.8	2.2	0.2	0.2	0.2	0.2	0.2	0.3	(0.01)	..	122	
Telecommunications	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	(0.04)	..	93	
Computer services	0.2	0.2	0.1	0.1	0.4	0.4	1.9	2.0	(0.46)	..	128	
Wholesale trade	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	(0.20)	..	116	
Rest of the economy	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.4	(0.31)	..	117	

Note: all monetary variables are expressed in euros at current prices and exchange rates.

% shares and (levels) correspond to the (%) ratio between the value of a variable (x) in country (i) and in the EU economy [= x<sub>i</sub>/x<sub>EU</sub>]. Percentage shares portray the weight of each country in the EU aggregate, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

## SLOVENIA



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	
											Slovenia
											EU

### Economic and industry trends

#### Value added (€ bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)
<b>Total economy (GDP)</b>	<b>32</b>	<b>35</b>	<b>38</b>	<b>36</b>	<b>36</b>	<b>37</b>	<b>36</b>	<b>36</b>	<b>0.3%</b>	<b>114</b>
<b>ICT sector</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0.2%</b>	<b>120</b>
Manufacturing	0	0	0	0	0	0	0	0	0.3%	69
Telecommunications	1	1	1	1	1	1	1	1	0.3%	85
Computer services	0	0	0	0	1	1	1	1	0.2%	140
Wholesale trade	0	0	0	0	0	0	0	0	0.1%	126
→ <b>ICT sector as a % of Total</b>	<b>3.3%</b>	<b>3.4%</b>	<b>3.4%</b>	<b>3.3%</b>	<b>3.5%</b>	<b>3.4%</b>	<b>3.5%</b>	<b>3.5%</b>		

#### Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)
<b>Total economy</b>	<b>944</b>	<b>976</b>	<b>1,001</b>	<b>983</b>	<b>962</b>	<b>946</b>	<b>937</b>	<b>924</b>	<b>0.4%</b>	<b>98</b>
<b>ICT sector</b>	<b>20</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>24</b>	<b>23</b>	<b>24</b>	<b>24</b>	<b>0.4%</b>	<b>120</b>
Manufacturing	5	5	5	5	5	4	4	4	0.6%	81
Telecommunications	5	5	5	5	5	5	5	5	0.5%	107
Computer services	9	11	12	12	13	13	14	14	0.4%	151
Wholesale trade	1	1	1	1	1	1	1	1	0.2%	97
→ <b>ICT sector as a % of Total</b>	<b>2.1%</b>	<b>2.2%</b>	<b>2.3%</b>	<b>2.5%</b>	<b>2.5%</b>	<b>2.5%</b>	<b>2.5%</b>	<b>2.6%</b>		

#### Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)
<b>Total economy</b>	<b>33</b>	<b>36</b>	<b>38</b>	<b>37</b>	<b>38</b>	<b>39</b>	<b>38</b>	<b>39</b>	<b>(0.64)</b>	<b>116</b>
<b>ICT sector</b>	<b>52</b>	<b>55</b>	<b>57</b>	<b>49</b>	<b>53</b>	<b>54</b>	<b>53</b>	<b>52</b>	<b>(0.56)</b>	<b>100</b>
Manufacturing	29	30	34	25	33	35	32	33	(0.46)	93
Telecommunications	107	113	115	98	105	110	108	102	(0.65)	96
Computer services	38	40	42	39	40	41	41	40	(0.50)	104
Wholesale trade	31	41	53	37	43	35	41	42	(0.46)	134

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)
<b>Total economy</b>	<b>291</b>	<b>299</b>	<b>398</b>	<b>424</b>	<b>506</b>	<b>660</b>	<b>703</b>	<b>716</b>	<b>0.4%</b>	<b>246</b>
<b>ICT sector</b>	<b>36</b>	<b>38</b>	<b>48</b>	<b>49</b>	<b>54</b>	<b>72</b>	<b>62</b>	<b>60</b>	<b>0.2%</b>	<b>167</b>
Manufacturing	32	32	32	26	28	30	28	28	0.2%	89
Telecommunications	-	-	1	2	5	3	2	2	-	78
Computer services	4	6	15	19	20	38	32	30	0.2%	721
Wholesale trade	-	-	-	2	2	1	1	0	0.1%	146
→ <b>ICT sector as a % of Total</b>	<b>12.3%</b>	<b>12.5%</b>	<b>12.1%</b>	<b>11.6%</b>	<b>10.7%</b>	<b>10.9%</b>	<b>8.8%</b>	<b>8.4%</b>		

#### R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)
<b>Total economy (% GDP)</b>	<b>0.9</b>	<b>0.9</b>	<b>1.0</b>	<b>1.2</b>	<b>1.4</b>	<b>1.8</b>	<b>2.0</b>	<b>2.0</b>	<b>(1.55)</b>	<b>216</b>
<b>ICT sector</b>	<b>3.4</b>	<b>3.2</b>	<b>3.7</b>	<b>4.2</b>	<b>4.3</b>	<b>5.7</b>	<b>4.9</b>	<b>4.7</b>	<b>(0.95)</b>	<b>139</b>
Manufacturing	21.3	21.9	19.1	19.3	17.3	20.0	20.1	20.5	(0.89)	96
Telecommunications	0.0	0.0	0.2	0.4	0.9	0.5	0.3	0.3	(0.16)	93
Computer services	1.2	1.3	3.0	3.8	3.8	7.2	5.8	5.3	(1.21)	457
Wholesale trade	0.0	0.0	0.0	5.1	3.9	3.8	2.3	1.2	(0.81)	116
Rest of the economy	0.8	0.8	1.0	1.1	1.3	1.7	1.8	1.9	(1.69)	117

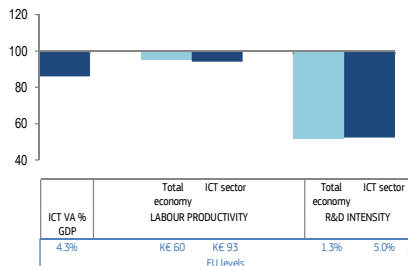
Note: all monetary variables are expressed in euros at current prices and exchange rates.

% shares and (levels) correspond to the (%) ratio between the value of a variable (x) in country (i) and in the EU economy [= x/x<sub>EU</sub>]. Percentage shares portray the weight of each country in the EU aggregate, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

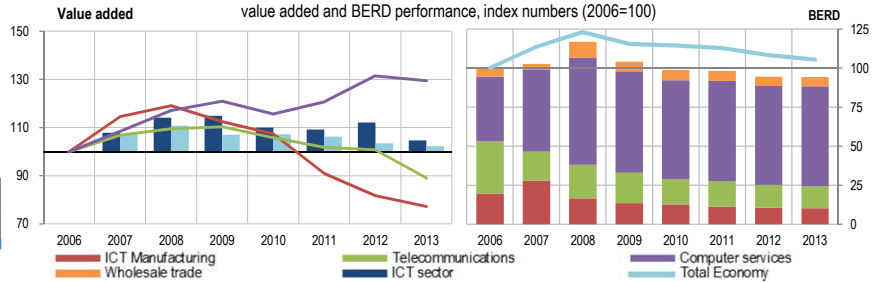
## SPAIN



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Spain	EU
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### Economic and industry trends

#### Value added (€ bn)

<b>Total economy (GDP)</b>	<b>1,008</b>	<b>1,081</b>	<b>1,116</b>	<b>1,079</b>	<b>1,081</b>	<b>1,070</b>	<b>1,043</b>	<b>1,031</b>	<b>7.6%</b>	<b>102</b>	<b>111</b>
ICT sector	36	39	41	42	40	40	41	38	6.5%	105	109
Manufacturing	2	2	2	2	2	2	1	1	2.7%	77	69
Telecommunications	19	20	21	21	20	19	19	17	9.8%	89	85
Computer services	13	14	15	16	15	16	17	17	5.4%	129	140
Wholesale trade	3	3	4	3	3	3	3	3	6.3%	113	126
→ ICT sector as a % of Total	3.6%	3.6%	3.7%	3.9%	3.7%	3.7%	3.9%	3.7%			

#### Employment (thousands)

<b>Total economy</b>	<b>20,609</b>	<b>21,285</b>	<b>21,324</b>	<b>19,987</b>	<b>19,640</b>	<b>19,141</b>	<b>18,430</b>	<b>17,948</b>	<b>8.0%</b>	<b>87</b>	<b>100</b>
ICT sector	367	396	440	429	437	446	437	433	7.0%	118	107
Manufacturing	38	38	33	30	31	29	24	22	3.2%	58	74
Telecommunications	66	65	74	75	77	76	77	74	6.8%	113	89
Computer services	207	229	259	258	266	276	275	278	7.1%	134	127
Wholesale trade	57	64	74	66	64	65	62	59	10.5%	105	97
→ ICT sector as a % of Total	1.8%	1.9%	2.1%	2.1%	2.2%	2.3%	2.4%	2.4%			

#### Productivity of labour (PPS thous./person employed)

<b>Total economy</b>	<b>49</b>	<b>51</b>	<b>52</b>	<b>54</b>	<b>55</b>	<b>56</b>	<b>57</b>	<b>57</b>	<b>(0.95)</b>	<b>117</b>	<b>111</b>
ICT sector	99	99	94	97	91	89	93	88	(0.94)	89	101
Manufacturing	47	53	63	65	62	55	61	62	(0.86)	134	93
Telecommunications	287	310	279	277	260	253	246	227	(1.44)	79	96
Computer services	62	61	58	60	56	56	61	60	(0.76)	97	110
Wholesale trade	51	49	50	53	51	52	56	55	(0.60)	108	130

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

<b>Total economy</b>	<b>6,558</b>	<b>7,454</b>	<b>8,074</b>	<b>7,568</b>	<b>7,506</b>	<b>7,396</b>	<b>7,094</b>	<b>6,906</b>	<b>4.0%</b>	<b>105</b>	<b>127</b>
ICT sector	1,055	1,084	1,232	1,097	1,042	1,036	995	995	3.4%	94	112
Manufacturing	209	294	177	143	134	120	112	109	0.9%	52	84
Telecommunications	351	196	226	206	171	171	154	150	4.6%	43	78
Computer services	437	555	723	685	668	677	668	674	5.0%	154	179
Wholesale trade	57	38	106	63	69	67	61	63	8.3%	110	146
→ ICT sector as a % of Total	16.1%	14.5%	15.3%	14.5%	13.9%	14.0%	14.0%	14.4%			

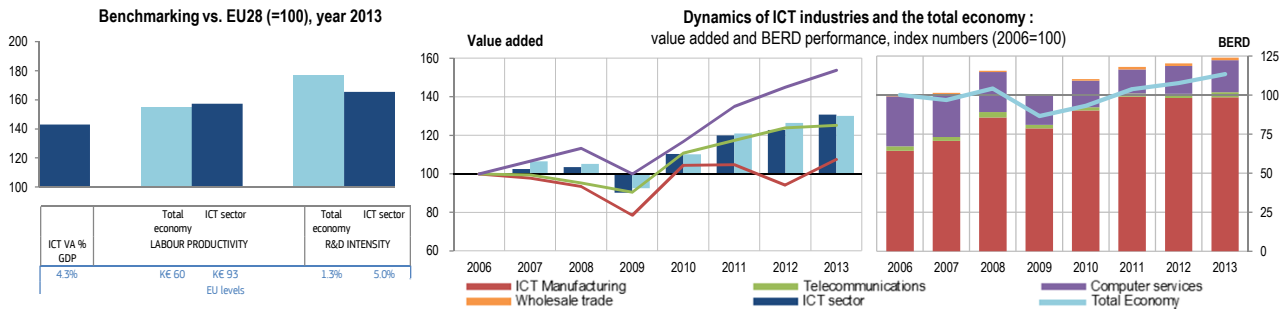
#### R&D Intensity (BERD as a % of value added)

<b>Total economy (% GDP)</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>(0.52)</b>	<b>103</b>	<b>114</b>
ICT sector	2.9	2.8	3.0	2.6	2.6	2.6	2.4	2.6	(0.52)	90	103
Manufacturing	11.9	14.6	8.4	7.2	7.1	7.5	7.8	8.0	(0.35)	67	122
Telecommunications	1.9	1.0	1.1	1.0	0.9	0.9	0.8	0.9	(0.47)	48	93
Computer services	3.4	4.0	4.8	4.4	4.5	4.4	4.0	4.1	(0.92)	119	128
Wholesale trade	2.0	1.2	2.9	1.8	2.1	2.0	1.8	1.9	(1.31)	97	116
Rest of the economy	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	(0.53)	-	117

Note: all monetary variables are expressed in euros at current prices and exchange rates.

% shares and (levels) correspond to the (%) ratio between the value of a variable (x) in country (i) and in the EU economy [= x/x<sub>EU</sub>]. Percentage shares portray the weight of each country in the EU aggregate, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

## SWEDEN



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Sweden	EU
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### Economic and industry trends

#### Value added (€ bn)

<b>Total economy (GDP)</b>	<b>335</b>	<b>356</b>	<b>352</b>	<b>310</b>	<b>369</b>	<b>405</b>	<b>423</b>	<b>436</b>	<b>3.2%</b>	<b>130</b>	<b>111</b>
ICT sector	20	21	21	18	23	25	25	27	4.6%	131	109
Manufacturing	7	6	6	5	7	7	6	7	14.1%	107	69
Telecommunications	4	4	4	3	4	4	5	5	2.8%	125	85
Computer services	9	9	10	9	10	12	12	13	4.3%	154	140
Wholesale trade	2	2	2	1	2	2	2	2	3.4%	114	126
→ ICT sector as a % of Total	6.1%	5.9%	6.0%	6.0%	6.1%	6.1%	5.9%	6.1%			

#### Employment (thousands)

<b>Total economy</b>	<b>4,423</b>	<b>4,524</b>	<b>4,565</b>	<b>4,455</b>	<b>4,498</b>	<b>4,594</b>	<b>4,627</b>	<b>4,672</b>	<b>2.1%</b>	<b>106</b>	<b>100</b>
ICT sector	172	176	182	176	174	175	181	182	2.9%	106	107
Manufacturing	29	30	32	31	31	30	31	31	4.5%	105	74
Telecommunications	27	26	25	24	22	21	21	21	1.9%	78	89
Computer services	94	99	105	102	103	106	110	111	2.9%	118	127
Wholesale trade	22	21	21	19	18	18	19	19	3.3%	86	97
→ ICT sector as a % of Total	3.9%	3.9%	4.0%	4.0%	3.9%	3.8%	3.9%	3.9%			

#### Productivity of labour (PPS thous./person employed)

<b>Total economy</b>	<b>76</b>	<b>79</b>	<b>77</b>	<b>70</b>	<b>82</b>	<b>88</b>	<b>91</b>	<b>93</b>	<b>(1.55)</b>	<b>123</b>	<b>111</b>
ICT sector	119	119	116	104	130	140	139	147	(1.57)	124	101
Manufacturing	222	213	193	163	223	228	196	226	(3.11)	102	93
Telecommunications	139	144	143	142	189	210	222	224	(1.42)	161	96
Computer services	92	93	93	84	98	110	114	119	(1.50)	130	110
Wholesale trade	71	80	84	68	83	93	98	95	(1.04)	134	130

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

<b>Total economy</b>	<b>8,754</b>	<b>8,470</b>	<b>9,119</b>	<b>7,577</b>	<b>8,160</b>	<b>9,088</b>	<b>9,417</b>	<b>9,933</b>	<b>5.7%</b>	<b>113</b>	<b>127</b>
ICT sector	1,784	1,807	2,060	1,785	1,966	2,104	2,144	2,209	7.6%	124	112
Manufacturing	1,148	1,261	1,529	1,402	1,607	1,766	1,752	1,759	15.3%	153	84
Telecommunications	50	43	59	43	39	34	44	55	1.7%	110	78
Computer services	571	491	458	330	303	276	319	367	2.7%	64	179
Wholesale trade	14	13	13	10	17	27	28	28	3.7%	201	146
→ ICT sector as a % of Total	20.4%	21.3%	22.6%	23.6%	24.1%	23.1%	22.8%	22.2%			

#### R&D Intensity (BERD as a % of value added)

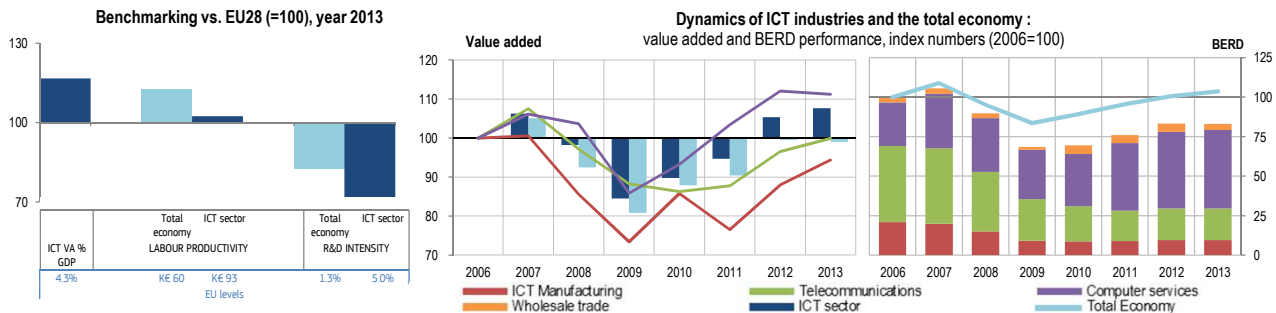
<b>Total economy (% GDP)</b>	<b>2.6</b>	<b>2.4</b>	<b>2.6</b>	<b>2.4</b>	<b>2.2</b>	<b>2.2</b>	<b>2.2</b>	<b>2.3</b>	<b>(1.77)</b>	<b>87</b>	<b>114</b>
ICT sector	8.7	8.6	9.7	9.7	8.7	8.6	8.5	8.3	(1.66)	95	103
Manufacturing	17.6	19.8	25.1	27.4	23.6	25.8	28.5	25.1	(1.09)	143	122
Telecommunications	1.3	1.1	1.7	1.3	0.9	0.8	1.0	1.2	(0.62)	88	93
Computer services	6.6	5.3	4.7	3.8	3.0	2.4	2.6	2.8	(0.63)	42	128
Wholesale trade	0.9	0.8	0.8	0.8	1.1	1.7	1.5	1.6	(1.08)	176	116
Rest of the economy	2.2	2.0	2.1	2.0	1.8	1.8	1.8	1.9	(1.68)	85	117

Note: all monetary variables are expressed in euros at current prices and exchange rates.

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## UNITED KINGDOM



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	UK	EU
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### Economic and industry trends

#### Value added (€ bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	UK	EU
<b>Total economy (GDP)</b>	<b>2,063</b>	<b>2,169</b>	<b>1,908</b>	<b>1,668</b>	<b>1,813</b>	<b>1,866</b>	<b>2,054</b>	<b>2,043</b>	<b>15.1%</b>	<b>99</b>	<b>111</b>	
ICT sector	95	101	93	80	85	90	100	102	17.6%	108	109	
Manufacturing	6	6	5	5	5	5	6	6	12.2%	94	69	
Telecommunications	34	36	33	30	29	29	32	34	19.6%	100	85	
Computer services	48	51	49	41	44	49	53	53	17.2%	111	140	
Wholesale trade	7	8	6	5	6	6	9	10	18.6%	132	126	
→ ICT sector as a % of Total	4.6%	4.7%	4.9%	4.8%	4.7%	4.8%	4.9%	5.0%				

#### Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	UK	EU
<b>Total economy</b>	<b>29,140</b>	<b>29,373</b>	<b>29,629</b>	<b>29,152</b>	<b>29,227</b>	<b>29,372</b>	<b>29,693</b>	<b>30,044</b>	<b>13.4%</b>	<b>103</b>	<b>100</b>	
ICT sector	1,007	1,016	1,014	988	976	1,025	1,021	1,070	17.2%	106	107	
Manufacturing	87	86	81	62	59	59	59	61	8.9%	70	74	
Telecommunications	221	221	213	214	211	214	212	210	19.4%	95	89	
Computer services	608	628	638	629	627	676	675	718	18.5%	118	127	
Wholesale trade	90	82	81	83	79	75	74	82	14.4%	90	97	
→ ICT sector as a % of Total	3.5%	3.5%	3.4%	3.4%	3.3%	3.5%	3.4%	3.6%				

#### Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	UK	EU
<b>Total economy</b>	<b>71</b>	<b>74</b>	<b>64</b>	<b>57</b>	<b>62</b>	<b>64</b>	<b>69</b>	<b>68</b>	<b>(1.13)</b>	<b>96</b>	<b>111</b>	
ICT sector	94	99	92	81	87	88	98	96	(1.02)	101	101	
Manufacturing	74	75	67	76	93	83	95	100	(1.37)	135	93	
Telecommunications	152	163	153	138	137	138	153	160	(1.01)	105	96	
Computer services	78	81	78	65	71	73	79	74	(0.93)	94	110	
Wholesale trade	81	95	71	60	80	83	116	118	(1.29)	147	130	

### R&D performance

#### Business expenditure in R&D (BERD - € mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	UK	EU
<b>Total economy</b>	<b>20,985</b>	<b>22,842</b>	<b>19,962</b>	<b>17,537</b>	<b>18,731</b>	<b>20,058</b>	<b>21,096</b>	<b>21,721</b>	<b>12.5%</b>	<b>104</b>	<b>127</b>	
ICT sector	4,319	4,554	3,871	2,960	2,997	3,281	3,595	3,583	12.4%	83	112	
Manufacturing	907	862	648	400	377	389	413	413	3.6%	46	84	
Telecommunications	2,076	2,063	1,629	1,137	962	828	865	862	26.6%	42	78	
Computer services	1,189	1,479	1,467	1,345	1,424	1,843	2,087	2,147	15.9%	181	179	
Wholesale trade	147	150	127	78	234	221	230	160	21.0%	109	146	
→ ICT sector as a % of Total	20.6%	19.9%	19.4%	16.9%	16.0%	16.4%	17.0%	16.5%				

#### R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)	UK	EU
<b>Total economy (% GDP)</b>	<b>1.0</b>	<b>1.1</b>	<b>1.0</b>	<b>1.1</b>	<b>1.0</b>	<b>1.1</b>	<b>1.0</b>	<b>1.1</b>	<b>(0.83)</b>	<b>105</b>	<b>114</b>	
ICT sector	4.5	4.5	4.1	3.7	3.5	3.6	3.6	3.5	(0.70)	77	103	
Manufacturing	14.2	13.4	11.8	8.5	6.9	7.9	7.3	6.8	(0.30)	48	122	
Telecommunications	6.2	5.7	5.0	3.8	3.3	2.8	2.7	2.6	(1.35)	42	93	
Computer services	2.5	2.9	3.0	3.3	3.2	3.7	3.9	4.0	(0.92)	162	128	
Wholesale trade	2.0	1.9	2.2	1.6	3.7	3.5	2.7	1.7	(1.13)	83	116	
Rest of the economy	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	(0.83)	-	117	

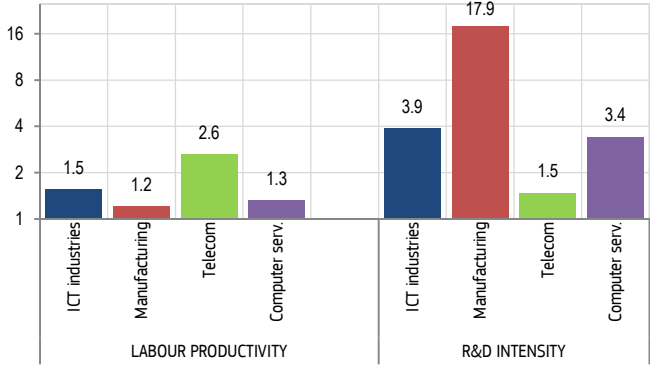
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EU28



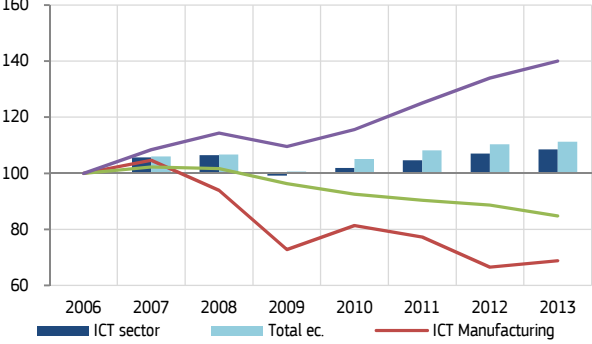
Benchmarking vs. total economy, year 2013, log scale



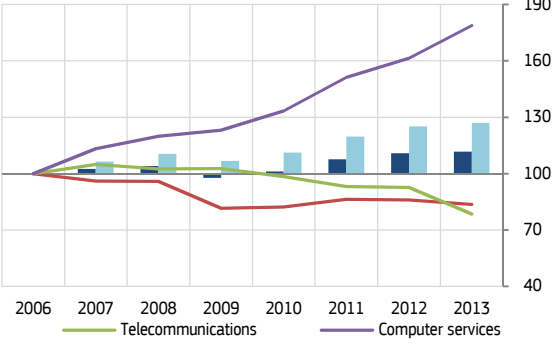
Dynamics of ICT industries (2006=100)

Note: scales for value added and BERD might be different

Value added



BERD



2006

2007

2008

2009

2010

2011

2012

2013

2013 vs  
Total ec.

2013 vs  
2006(=100)

## Economic and industry trends

Value added (€ bn)

<b>Total economy (GDP)</b>	<b>12,177</b>	<b>12,909</b>	<b>12,994</b>	<b>12,250</b>	<b>12,794</b>	<b>13,177</b>	<b>13,429</b>	<b>13,542</b>		<b>111</b>
ICT sector	535	566	570	531	545	560	573	581	4.3%	109
Manufacturing	72	76	68	53	59	56	48	50	0.4%	69
Telecommunications	201	206	205	194	186	182	179	171	1.3%	85
Computer services	220	239	252	241	255	276	295	308	2.3%	140
Wholesale trade	41	45	45	43	46	47	51	52	0.4%	126
<b>ICT sector as a % of Total</b>	<b>4.4%</b>	<b>4.4%</b>	<b>4.4%</b>	<b>4.3%</b>	<b>4.3%</b>	<b>4.2%</b>	<b>4.3%</b>	<b>4.3%</b>		<b>97.6</b>

Employment (thousands)

<b>Total economy</b>	<b>224,538</b>	<b>228,831</b>	<b>231,179</b>	<b>227,192</b>	<b>225,673</b>	<b>225,993</b>	<b>225,129</b>	<b>224,472</b>		<b>100</b>
ICT sector	5,791	5,989	6,138	5,991	5,928	6,068	6,146	6,221	2.8%	107
Manufacturing	928	950	921	784	743	740	715	683	0.3%	74
Telecommunications	1,221	1,253	1,235	1,185	1,123	1,105	1,099	1,084	0.5%	89
Computer services	3,055	3,197	3,358	3,451	3,496	3,646	3,764	3,887	1.7%	127
Wholesale trade	587	589	623	571	567	577	568	568	0.3%	97
<b>ICT sector as a % of Total</b>	<b>2.6%</b>	<b>2.6%</b>	<b>2.7%</b>	<b>2.6%</b>	<b>2.6%</b>	<b>2.7%</b>	<b>2.7%</b>	<b>2.8%</b>		<b>107.5</b>

Productivity of labour (€ thous./person employed)

<b>Total economy</b>	<b>54</b>	<b>56</b>	<b>56</b>	<b>54</b>	<b>57</b>	<b>58</b>	<b>60</b>	<b>60</b>	<b>(1.00)</b>	<b>111</b>
ICT sector	92	94	93	89	92	92	93	93	(1.55)	101
Manufacturing	78	80	74	67	79	75	67	73	(1.21)	93
Telecommunications	165	164	166	164	166	165	162	158	(2.61)	96
Computer & information services	72	75	75	70	73	76	78	79	(1.32)	110
Wholesale trade	70	77	73	75	81	81	90	92	(1.52)	130

## R&D performance

Business expenditure in R&D (BERD - € mln)

<b>Total economy</b>	<b>137,177</b>	<b>146,056</b>	<b>151,702</b>	<b>146,552</b>	<b>152,656</b>	<b>164,146</b>	<b>171,634</b>	<b>174,387</b>	<b>100.0%</b>	<b>127</b>
ICT sector	25,943	26,615	27,000	25,358	26,255	27,935	28,757	28,994	16.6%	112
Manufacturing	13,733	13,193	13,171	11,203	11,294	11,865	11,821	11,485	6.6%	84
Telecommunications	4,130	4,331	4,236	4,240	4,069	3,845	3,825	3,241	1.9%	78
Computer services	7,556	8,554	9,057	9,299	10,079	11,421	12,202	13,506	7.7%	179
Wholesale trade	523	537	536	617	813	803	909	763	0.4%	146
<b>ICT sector as a % of Total</b>	<b>18.9%</b>	<b>18.2%</b>	<b>17.8%</b>	<b>17.3%</b>	<b>17.2%</b>	<b>17.0%</b>	<b>16.8%</b>	<b>16.6%</b>		<b>87.9</b>

R&D Intensity (BERD as a % of value added)

<b>Total economy (% GDP)</b>	<b>1.1</b>	<b>1.1</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.3</b>	<b>1.3</b>	<b>(1.00)</b>	<b>114</b>
ICT sector	4.8	4.7	4.7	4.8	4.8	5.0	5.0	5.0	(3.88)	103
Manufacturing	19.0	17.4	19.4	21.3	19.2	21.3	24.6	23.1	(17.94)	122
Telecommunications	2.1	2.1	2.1	2.2	2.2	2.1	2.1	1.9	(1.47)	93
Computer services	3.4	3.6	3.6	3.9	4.0	4.1	4.1	4.4	(3.40)	128
Wholesale trade	1.3	1.2	1.2	1.4	1.8	1.7	1.8	1.5	(1.14)	116
Rest of the economy	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	(0.87)	117

Note: all monetary variables are expressed in euros at current prices and exchange rates.

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## **References**

The 2016 PREDICT Report

Both the report and the database can be accessed through the following web page:  
<https://ec.europa.eu/jrc/en/predict/data>



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